

Traditional Knowledge in Indonesia Rural Development, Cultural Living or Cultural Heritage: Evidence in North Tapanuli Regency, Indonesia

Muba Simanihuruk¹, Rizabuana Ismail^{1*}, Devi Sihotang¹,
Mohamed Thariq Hameed Sultan², Salamah Thomasita Batubara³, and
Mohammad Dandy Goesti⁴

¹Department of Sociology, Universitas Sumatera Utara, Medan, Indonesia

²Department of Aerospace Engineering, Universiti Putra Malaysia, Serdang, Selangor, Malaysia

³Department of Health and Pharmacy, Universitas Bani Saleh, Jakarta, Indonesia

⁴School of Computing and Technology, Asia Pacific University of Technology & Innovation, Data Science and Business Analytics, Kuala Lumpur, Malaysia

ABSTRACT

This study examines the contribution of Traditional Knowledge (TK) to the Village Development Index (*Indeks Desa Membangun*, IDM) following the implementation of Law No. 6/2014 on Village Administration in Indonesia, with a specific focus on North Tapanuli Regency, home to the majority of the Batak Toba ethnic group. TK is a critical element in local development discourse, particularly as modernization has often failed to deliver sustainable development outcomes in many developing countries. Adopting a qualitative research approach, data were collected through in-depth interviews and literature review. Seven key informants were interviewed, including traditional leaders from the *Dalihan Natolu* (Three-Legged Stove) institution, village heads, sub-district officials, directors of village-owned enterprises (*Badan Usaha Milik Desa*, Bumdes), NGO activists, and local pastors. Data triangulation was employed to enhance the credibility and depth of findings, aiming to construct a holistic understanding of the research phenomenon. Thematic analysis of interview transcripts revealed that TK is still predominantly treated as cultural heritage (CH), rather than being embraced as a living

cultural framework (Cultural Living, CL) that guides village leadership behavior in managing village funds. Currently, TK mainly governs social and ceremonial aspects of community life—such as weddings, funerals, and traditional rituals—rather than informing governance or development strategies at the village level.

Keywords: Batak Toba Ethnic, indigenous development, traditional knowledge, village developing index, village fund

ARTICLE INFO

Article history:

Received: 02 December 2024

Accepted: 17 July 2025

Published: 02 December 2025

DOI: <https://doi.org/10.47836/pjssh.33.6.07>

E-mail addresses:

muba@usu.ac.id (Muba Simanihuruk)

rizabuana@usu.ac.id (Rizabuana Ismail)

devisihotang93@gmail.com (Devi Sihotang)

thariq@upm.edu.my (Mohamed Thariq Hameed Sultan)

salamah@ubs.ac.id (Salamah Thomasita Batubara)

dandygoesti@gmail.com (Mohammad Dandy Goesti)

* Corresponding author

INTRODUCTION

Development in most of the countries in the south world is currently undergoing deadlock; it is caused by the incidence of development approach in this area as the repetition of modernization approach in the northern region. Portes (2015) and Kassam (2002) point out that the world countries only acknowledge the superiority and the specification of their development values and ignore the development values in the countries of the south even though many things are paradoxical in these two areas. The modernization approach is a cultural colonization (Said, 1994) that is usually propelled through invasion and institutional violence by Western countries (Cobb, 2012) so that developing countries will follow their ideology and trend of modernization development.

Indonesia post of the Old Order regime was characterized by high economic inflation (600%) and high poverty levels. This was a direct impact of the global order characterized by the rivalry of communist versus nationalist and religious political ideologies. The instability of the Old Order regime is considered to be an implication of the Old Order's political bloc, which was considered to be oriented towards the social-communist Eastern bloc. The instability and economic downturn of the Old Order regime paved the way for the New Order regime to choose the path of modernization as a development paradigm. A further implication of this modernization approach is that it puts development as the "commander" and ignores the heterogeneity

of Indonesian society and culture. Indonesia, which consists of approximately 250 ethnic groups, was "homogenized" for the sake and in the name of economic development. This was made possible by authoritarian political leadership and an iron fist. This emphasis on economic development, along with the colonization and evangelization of the heavenly religions, made the local wisdom of the 250 ethnic groups wither and slowly disappear (Anderson, 1990; Feith, 2006) .

Indonesia is one of the countries that chooses the way to development by using the modernization approach as the economists' thinking from Berkeley University, the U.S.A, that is known as Berkeley Mafia, the jargon of taking off which was usually proposed by the late President Suharto whose regime lasted almost four decades in the New Order era, a term suggested by Rostow in the theory of social development that is described in the following Picture in Figure 1 (Rostow, 1991; Solivetti, 2005).

The deadlock in regional development in the southern area in general and the developing countries, in particular, has encouraged some experts to turn to indigenous discourse and indigenous development.

This research is attempting to exploit the contribution of TK in encouraging rural development in general so that IDM (Village Developing Index) can be achieved based on the regulations of the Indonesian government. This approach is relevant because, according to some studies, Batak Toba ethnic is considered to have its adat (customary or traditional) system, such as

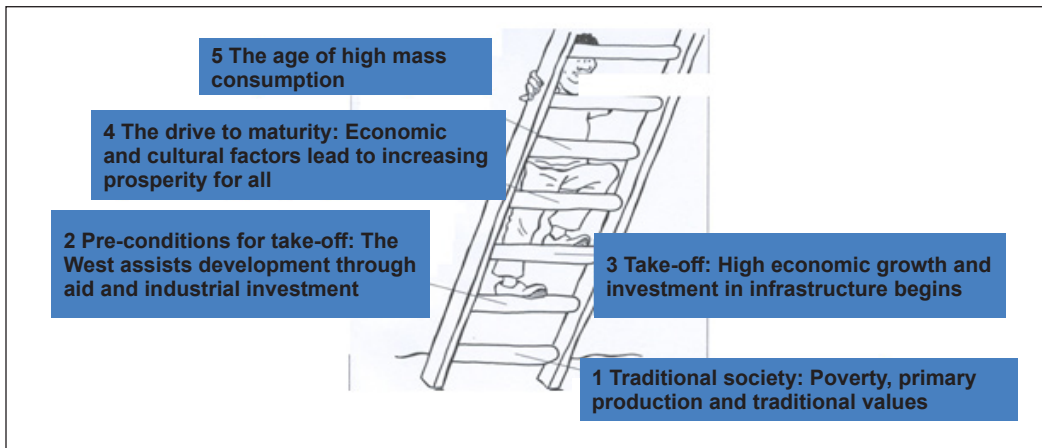


Figure 1. Theory of Economy or Modernization Development
Source: Rostow, 1991; Solivetti, 2005

village administration system (*huta*) and regulation on land ownership (Cattles, 2001; Vergouwen, 2004) which includes the system of the election for village head based on Batak Toba custom which is known as *si soli-soli* (Simanihuruk et al., 2023). In other words, every ethnic group or indigenous group of people in Indonesia has its self-governing capacity. The contribution of this TK is interesting to analyze in the post-implementation of Law No. 6/2014 on Village Administration, issued by the Indonesian government. It is because, since 2015, ADD (Village Fund Allocation) has begun to be transferred by the central government to villages directly as a part of budget politics to increase development in rural areas. Fiscal decentralization at the village level is a radical policy because it has changed the paradigm of development, which used to be a centralized and up-down system, to the paradigm of decentralized development and a bottom-up system. This policy is also considered an affirmative

policy as the realization of partiality toward rural development (Mahendro, 2013). A study on fiscal decentralization used to be more dominant at the level of districts/towns. However, nowadays, fiscal decentralization at the village level has become the attention of some researchers. It can be concluded that the policy of ADD, based on the previous research results, has been able to increase rural development (Malau & Hotman, 2023). Some other researchers also have the same opinion; they point out that ADD has been successful in increasing farmers' production and income in rural areas (Indraningsih et al., 2021). The increase in farmers' production and income is in harmony with the improvement of the link transportation and interconnection between villages and markets so that agricultural products are easier to market. Even though ADD has been successful in increasing the IPD (Village Development Index) and IPM (Human Development Index), it does not automatically decrease the poverty rate

(Rimawan & Aryani, 2019). Unfortunately, Village Fund Allocation, at a certain level, becomes a “fertile ground” for corruption in villages (Ginting et al., 2024). Another study by Dhewanto et al. (2020) reveals that ADD has not been able to bring about village entrepreneurs, so therefore, collaborated participation to strengthen local economic conditions in rural areas.

LITERATURE REVIEW

TK as an Alternative for Development in Modernization Deadlock

Development in developing countries, including Indonesia, might be a myth in the rivalry of the global world, which is indicated by “globalization empowerment and national impoverishment” (Rivero, 2001). This lag or backwardness occurs because developing countries have chosen a modernization approach from the West and is considered incompatible with the context of cultural and religious diversity in this area. Modernization is the repetition of the history of Western colonization through cultural colonization (Said, 1994) toward the countries in the southern part. This new form of colonization encouraged philosophers in Latin American countries and developing countries to turn to indigenous discourse and indigenous development. Indigenous development is considered an oasis during the failure of the modernization approach.

TK is expected to be a hope for the future because it is the result of the thought of the community through long experience in a sustainable time frame in cross-generation which other communities may not own. The

values will adhere tightly to the community and have been internalized over time (Fajarini, 2014). Geertz (1992) points out that TK is acknowledged as owned by a local community; it is a cultural system guided by local people, and it is a part of their identity that is instilled sensitively. The crucial point concerning this local knowledge is in the meaning; cultural interpretation is “not experimental knowledge in searching for law, it is an interpretative knowledge in searching for meaning.” The system of TK is usually considered an irrelevant study; it is only an exotic study even though it is believed and followed by 370 million traditional communities in 90 countries. Colonization in the indigenous people’s territories in the 15th century, among others, will eventually weaken TK. Cartesian thinking diffusion rapidly spreads out into the *adat* communities’ territory and slowly but certainly will shake TK so that at a certain level, it will revoke them from their identity and their local wisdom (Subramanian & Pisupati, 2010).

TK is dynamic knowledge, and it is far different from modern knowledge. Meanwhile, modernization values are the values that come from and developed in Europe in general as a fertile ground for the awakening of capitalism. The indicators of modern values are seen from the values of hard work, valuing time, postponing hedonism, accumulating profit, freedom, need for achievement, secularism, scientific advancement, and technological and innovative application. The process of modernization is the transformation of

religious and metaphysical values toward the values of knowledge, secularism, rationalism, and technological innovation. Therefore, modernization ideology is glorified as superior and high-cultured values and traditional values are in harmony with inferiority and popular culture. In the development discourse, in many things, there is the hegemony of modern values on TK. The dichotomy of traditional values versus modern values cannot eventually be avoided. The first values (modern values) are considered superior to the later values (traditional values). In the extreme, those who adore the theory of modernization glorify this theory with the jargon, “traditional is bad and modern is good,” even though cultural freedom (knowledge) is the right of every man to possess and create his own culture, which means that every culture has the equal right to understand through his way to know it respectively (Haverkort & Reijntjes, 2010). Integrating traditional knowledge with modern Western knowledge is a bridge to build the theory of ethno-development or ethno-developed for developing countries to flourish, not to replicate European countries’ development values and approaches. Global knowledge disparities drive this integration and aim to transform traditional knowledge into modern theories and methodologies (Shen et al., 2024).

Characteristics of Traditional Knowledge (TK)

COMPAS (Comparing and Supporting Indigenous Development) was an

international institution that cared about cooperative programs in 1995. Funded by NGOs and governments in Africa, Asia, Europe, and America, it has conducted research on TK for more than ten years. It finally concludes the general characteristics of TK as follows:

1. The most worthwhile lesson of TK is holistic. Even though it is very varied, its general description includes three domains that cannot be separated from one another: 1) the natural world, 2) the social world, and 3) the spiritual world (as can be seen in the picture below).
2. TK, which is included in the natural domain, includes knowledge about soil, plants, climate and animals, the use of traditional land, agriculture, and practices on health.
3. The social world domain includes local organization, local leadership, management of natural resources, cooperatives, resolution of conflicts, gender relationships, art, and language.
4. Spiritual domain includes knowledge of and belief in the spiritual world, sanctity, spiritual powers, ancestors, ritual practices, and festivals.

Further, the result of the research on TK concludes that the system of TK has the characteristics as follows:

1. Non-dualistic: Do not distinguish the subject of research from the object of research, thinking from matter, or man from nature.

2. Dynamic: Each traditional knowledge has its way of learning, experimenting, the teaching itself, and TK always attempts to search for consensus.
3. Informal: Learning occurs in daily life; it happens in a family, an ethnic group, and a local community. Learning is not always documented or written.
4. Sometimes TK can mean a secret and sanctity when the local knowledge is monopolized by certain traditional leaders such as spiritual counselors, holy people, predecessors, and ancestors,
5. The system of TK is related to spirituality. It contains the values of life and spirituality while predecessors and those who are not born yet play the role. The important sources on TK can be holy people, sacred places, and holy books.
6. The meaning of time is not considered linearly (commending from the old days to the present time and to the future. Time is often viewed as a cycle or spiral. Its quality is not always the same; it can become a good token for certain moments. Its frame can last for a very long period.
7. The method is not merely limited to rationality, and quantitative and qualitative research can be verified. Intuition and meditative methods, learned from the inside, become a part of reality and play an important role in the scientific method. Experience, participation, soothsayer's point of view, community tradition, good advice from older people, dreams, initiative/initial ritual, consuming alcohol and stimulants, reflection, and communication with the spirits of the ancestors are all very important.
8. The reciprocity of man with nature and the spiritual world is expressed in sacred rules, sacrifices, and rituals/festivals.

METHODS

This research used a qualitative paradigm approach. In qualitative research, the researcher is the main research data collection tool. Researchers and research assistants conduct in-depth interviews with key informants who are considered “knowledgeable agents” (Gomes et al., 2023) who know the theme or problem being studied. The data were gathered by conducting in-depth interviews and a literature study. In-depth interviews and triangulation were conducted with seven (7) key informants, including traditional leaders of the *Dalihan Natolu* (Three-Legged Stove) institution, village heads, district official elites, directors of village-owned enterprises (*Badan Usaha Milik Desa or Bumdes*), non-governmental organization activists and pastors. Research validation is expected to be obtained through data triangulation from various key informants as well as to

produce complete and in-depth data. Data was collected through in-depth interviews for approximately two months (May to June 2023). The interviews were conducted at the locations of the key informants after scheduling appointments. Interviews with key informants from government officials were conducted multiple times because the interviews were sometimes interrupted due to the key informants' busy schedules. Data collection was halted when there was a repetition of answers or saturation from the key informants regarding the research theme/topic, indicating that the research questions had been adequately addressed. Thus, the research phenomenon being studied can be described holistically. Interview transcripts were then analyzed based on themes and research problems. Literature study itself is defined as research about the summary or important points of a journal, a book, or a document; either they occurred in the past, or they appear at the present (Creswell & Poth, 2016).

RESULTS AND DISCUSSION

Batak people in general and Batak Toba in particular are one of the 19 *adat* communities in Sumatera (Ginting et al., 2024). If this condition is traced back further, the Batak Toba community, according to some researchers, really has a complete traditional government system so that it fulfills the requirements for governmental sovereignty, which is usually called a mini state. However, this idea is denied by Cattles (2001), who points out that the Bataknese community is a community that has no country or is

stateless. An autonomic government is usually at the level of a village. Therefore, the ethnic groups in Indonesia have their terms in calling a village. Even though villages in the Indonesian archipelago in the old days and in Indonesia today have self-governing capacity; however, *huta* (village) in the Batak Toba area has uniqueness because, according to the Batak Toba *adat* (customary) law, every town in the Batak Toba land must be led by *marga pamunggha huta* (the clan that has established the village). The first descendant who established the *huta* (village) is called, *marga sipungka huta*. A clan is one of the main identities of the Batak Toba ethnic and the Bataknese community in general. A clan is also important in the system of kinship terminology. Silalahi (2014) further points out that autonomy and democracy in every *huta* are very strong in the Harjaon Batak Toba, compared with *huta* in Tapanuli Selatan, Karo, Simalungun, and Dairi. A *huta* or village that is established by them or by their ancestors is considered as their possession, which other people must not control. The other Raja *huta* (village chief) is, of course, respected by the villagers, but it does not exceed the homage of the village chief's power itself. Along with the increase in the lineage of clan descendants and the influx of new clans who got married to the daughters of the founder clan, some villages then agreed to cooperate. This confederation was called *horja*. It was established, first, to manage any affairs which involved some villages, such as the problem of irrigation, which water flowed through some villages;

secondly, to anticipate a threat and an attack from the neighboring villages because of the issues of land (*golat*), irrigation, and security. Along with the increase in the population and the people's complexity of issues, some *horja* agreed to collaborate and establish confederation. This confederation was called *bius*, which means, according to Sitor Situmorang, a mini state. In the last step, *bius* also established a confederation under the dynasty of Sisingamangaraja.

In the level of government, *bius* is led by Raja Junjungan, provided with the institutions of Pande Bolon, Pande Raja, Pande Mulia, Pande Namora and Raja Parbaringin. The next *horja* level is led by Deputy Raja Junjungan, aided by Raja Saniang Naga institution (Deputy Pande Raja), Raja Parsirambe/Patuatgaja (Deputy Pande Mulia), Raja Mamburbulang/Raja Parjuguk (Deputy Pande Namora), and Raja Parbaringin. The last *huta* level is led by the Administrator and aided by Undut Solu institution (King of the Sea) Deputy King Saniang Naga, Pangulu Raja (War Chief), Deputy Raja Parsinabul, Pande Aek (Expert in Agriculture), Deputy Raja Parsirambe, Pangulu Dalu (Expert in Animal Husbandry), and Deputy Raja Mamburbulang and Raja Parbiringin. All of them can be seen in the following Figure 2.

However, the existence of this autonomic government slowly but certainly changed, along with the colonization and the birth of the Indonesian government. History has recorded that Dutch colonial began to organize villages by issuing Article 71 of *Regeerings Reglement* 1854 or Article 128

of *Indische staatsregeling*. On the validation of a Resident, villagers had the right to elect their village head and their own Village Administration. A long history of the supra-state grip on village administration can be seen from the change in legislation that regulates villages in Table 1.

A long series of amendments to laws from 1945 until 2004 had paralyzed the independence and the capacity of village administration to manage itself. Then, how about the condition of this TK in the current condition? TK which is found in Tapanuli Utara Regency today is 1) *sistem sisoli-soli* or Wheel of Fortune (2) *sakke hudali* or hang up the hoe, and (3) *lubuk larangan* or Traditional no-fishing zone. The functions of these three types of TK are as shown in Table 2.

TK is explained briefly in the life of the Batak Toba Community in Tapanuli Utara Regency as follows:

TK *Sisoli-Soli* (Wheel of Fortune)

Si soli-soli is the election of village heads in the *adat* system. It is often called *ganti soring*. Its *adat* advice says, *sisoli-soli uhum, siadapari gogo*, which means giving each other and helping each other. Philosophically, power in Batak Toba community should be distributed fairly in daily life; it is practiced by giving and taking. It should be rotated among the clans as the founders of villages, fairly like a rotating wheel. *Si soli-soli* organizes the election of village heads by turns among *marga pamungha huta* (the clans as the founders of villages). When a town, for example, is established by three clans

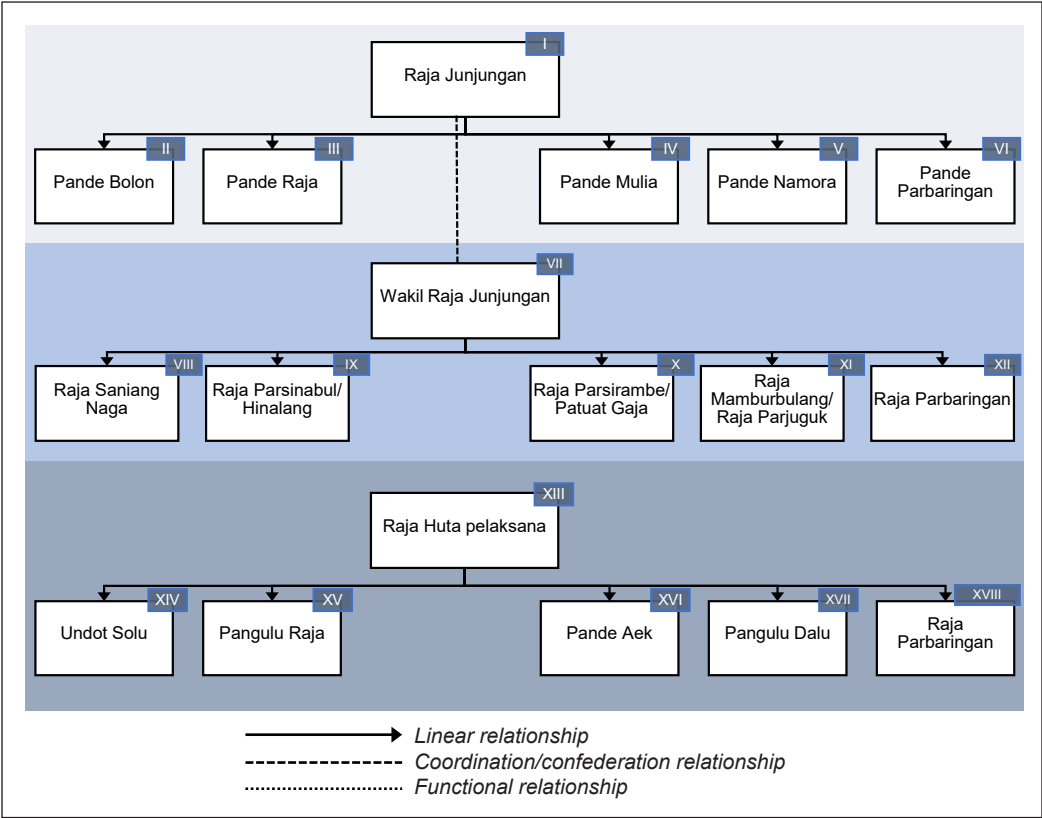


Figure 2. Bureaucratic Organizational Structure of Haranjaon Dinasti (Source: Silalahi, 2014)

Terminologies: I. Head of *bius*; II. *Raja Junjungan* aide who manages customary functions at the *bius* level; III. *Raja Junjungan* aide who manages religious functions at the *bius* level; IV. *Raja Junjungan* aide who manages economic functions at the *bius* level; V. *Raja Junjungan* aide who manages financial functions at the *bius* level; VI. *Raja Junjungan* aide who manages religious functions at the *bius* level; VII. Deputy to *Raja Junjungan* at the *horja* level; VIII. Deputy to *Pande Bolon* at the *horja* level; IX. Deputy to *Pande Raja* at the *horja* level. Also known as *Hinalang*; X. Deputy to *Pande Mulia* at the *horja* level. Also known as *Patuatgaja*; XI. Deputy to *Pande Namora* at the *horja* level. Also known as *Raja Parjuguk*; XII. Deputy to *Pande Parbaringan* at the *horja* and *huta* levels; XIII. Head of *huta* or village head. Government executor at the *huta* level; XIV. King of the Sea, the deputy to *Raja Saniang Naga* at the *huta* level; XV. War expert or general at the *huta* level; XVI. Irritation/water Expert at the *huta* level; XVII. Animal husbandry expert at the *huta* level; XVIII. Deputy to *Pande Parbaringan* at the *horja* and *huta* levels

for the first time, Clan A, Clan B, and Clan C. Each of them should be given an equal opportunity to be the village head, beginning from the oldest clan. The oldest clan is usually identical to the oldest son. Viewed from history, the clan is the same as its older name. If there is more than one

candidate from Clan A, for example, an *adat* ceremony, which is called *manjomput nani surat* (drawing written ballots) from the ballot boxes, will be held. Three ballots have been prepared in them. One of the ballots is written *Aku Calon Kepala Desa* (I am the Village Head Candidate), while

Table 1
Development of regulations on the position of villages in Indonesia

Laws	Position of a Village	Explanation
Law No. 1/1945	A village has the right to organize its own domestic affairs (autonomy)	It was carried out only until the district and municipality
Law No. 22/1948	A village was categorized as a Level III Government	It did not work due to the RIS constitution and UUDS 1950
Law No. 1/1957	It was possible to establish autonomic region Level III despite no confirmation.	It did not work effectively due to Presidential Decree 1959
Law No. 19/1965	As <i>desa praja</i> , is not considered a Regional Government	It was postponed due to political reasons
Law No. 5/1979	Subordinate district government	Tendency to authoritative centralization
Law No. 22/1999	Combination of the principles of self-governing community, local self-government, and local state government	The position of the village was blurred, and the principle of decentralization was heeded
Law No. 32/2004	Combination of the principles of self-governing community, local self-government, and local state government	The position of the village was blurred. Tendency to shift the management to centralization
Law No. 6/2014	Combination of the principles of self-governing community, local self-government, and local state government	Recognition of the existence of <i>adat</i> village. Village capacity and authority were strengthened.

Source: Irawan, 2017

Table 2
Traditional knowledge in community life

Names of TK	Organize the Sector of Life	Main Philosophy and Values	Calendar of Execution
<i>Si soli-soli (Wheel of Fortune)</i>	Adat village head election system	Redistribution of Power among village founding clans	In pre-Independence it was not periodical, in post-independence it was periodical, following calendar in the post-general election
<i>Sakke Hudali (hang up the hoe)</i>	Agricultural and Environmental Conservation	Honor to nature or moral ecology and developing solidarity and values of egalitarianism	At the time of rice planting season
<i>Lubuk Larangan (Traditional no-fishing zone)</i>	Environmental Conservation and water resources, including fishery	Appreciation to nature or moral ecology and developing solidarity and egalitarianism values	At the time of fish harvesting season

the other two ballots are blank. When one of the candidates *manjomput* (takes) the ballot written *Aku Calon Kepala Desa*, he will be the valid person who has agreed to represent his clan group. However, direct general elections for village heads as the government regulates them are also held and carried out. Of course, the candidate for village head that the adat law has elected will be the winner.

The philosophy of *si soli-soli* guarantees the fair redistribution of power among the clans of the founders of villages; it is like a rotating wheel. Another value of good deeds in this *adat* system is that the power of a village head is the moral obligation of the clan group; it is not the personal responsibility of the village head. When he commits a bad deed, for example, he will automatically make his clan ashamed. Power is the dignity of the clan, not merely the dignity of an individual. However, the *adat* system has been shaken, especially in villages close to big towns such as Tarutung (the capital of Tapanuli Utara Regency), since there have been many migrants, such as government employees and merchants who come to this town from various regencies. The influx of migrants has made the legitimacy and the quantity of the clans as the founders of villages decrease. Besides that, at a certain time, there is a conflict since the new-comers object to the *si soli-soli* system and force villagers to do the general election system for village heads by saying that every individual has an equal right to elect and to be elected.

TK *Sakke Hudali* (Hang Up the Hoe)

Sakke Hudali is a hoe that has been hung. It means that the rice plants have been planted in the wet rice fields so that there will be no hoe to be used. The practice of *Sakke Hudali* has been done for more than 500 years; it was long before Christianity and Islam came into Panti village, Pahae Sub-district, Tapanuli Utara Regency. The *data* tradition is the realization of thanking

God and praying *asa gabe na ni ula* (the rice plants that have been planted will become fertile). *Sakke Hudali* is an opportunity for the villagers to do specific pray for having toiled rice plants. This ritual is also expected to develop social capital among the farmers. By the time the ritual of *Sakke Hudali* is carried out, the same food is served in their kitchens; it is the buffalo meat, and they take rest together. By sunset, the villagers are prohibited from doing farm work. They have to take a rest at home; no one will be allowed to go to the farms even though they only take cassava leaves. All outside activities have to be done the next morning. The gratitude is given to God the Almighty because the rice plants have been planted safely. Religious and *adat* leaders pray: *Asa gabe na niula, dipadao sian bala* together in the hope that the rice plants which have been planted will be successful and there will be no pests (A. Harahap, 2022).

TK *Lubuk Larangan* (Traditional No-Fishing Zone)

TK about *Lubuk Larangan* is a tradition that organizes the relationship between human beings and human beings and between human beings and nature. In this tradition, the people are not allowed to go fishing (it is known as *ihan* in Bataknese) by the river without permission from the community. They let goldfish live naturally in the river, which is surrounded by tall and shady trees, and the water comes from warm water sources. When the time to catch fish comes, all of the people around the village catch fish together by decreasing the depth of the

river water where the colony of fish flocks together so that the people will block them upstream with stones and sand. Outside the season of catching fish, the villagers are prohibited from catching fish, cutting off trees surrounding the river, and making it dirty. The fish they have caught will be cooked and eaten together by the villagers by the river.

The three TKs above only partially organize the life of the community. *Si soli-soli* organizes the election for village heads, *sakke hudali* organizes the harmonious relationship between human beings and environment and, at the same time, develops villagers' social cohesion, and *lubuk larangan* organizes harmonious relationship between human beings and environment and, at the same time, develops villagers' social cohesion. In many things, TK organizes the life of villagers partially and does not contribute in supporting Village Development Index. This statement is strengthened by the statements of the informants from the *custom* Institution who are interviewed in in-depth interviews as follows:

“.... TK only organizes daily social life such as funerals, weddings, moving skeletons to family mausoleum, which

in local language is known as *tugu* or *tombak*“

Table 3 presents the matrix of key informants' responses concerning the role of traditional knowledge (TK) in rural development in general and in enhancing the Village Development Index (IDM) in particular.

TK does not make a significant contribution to encouraging IDM because of the Alokasi Dana Desa or ADD (Village Fund Allocation) and *Dana Desa* or DD (Village Fund) in the post-implementation of Law No. 6/2014 on Village Administration in Tapanuli Utara Regency. Until 2021, the Village Development Index in this Regency always underdeveloped village index. The result of the research shows that TK since 2018-2021 does not concretely increase Village Development Index in Tapanuli Utara Regency because its index always underdeveloped with a score of 0.5904, as stated in Figure 3.

TK deadlock has encouraged development; it is caused by three factors (Briggs, 2013): first, TK in the field of environment (such as *traditional no-fishing zone* or *lubuk larangan*) plays its role in environment conservation, but it cannot be

Table 3
Traditional knowledge in rural development

Key Informants	Brief Answers
Management of LADN (<i>Dalihan na Tolu Adat</i> or the three-legged stove Institution)	TK remains an accessories in life; it only exists in official ceremonies in welcoming guests from the central government. The accessories are seen from <i>umpasa-umpasa</i> (<i>proverbs</i>) and traditional customs. TK remains an identity shown to foreigners and the community. TK only organizes <i>adat</i> funerals, wedding ceremonies, and <i>mangokkal holi</i> (The Batak ancestral bone-reburial ceremony) of family members to family mausoleum (<i>tugu</i>). TK does not directly contribute to rural development.

Table 3 (continue)

Key Informants	Brief Answers
District Officials	TK is only a government approach to the people. When the District officials visit the village, we open the ceremony with a greeting, “Horas” (Good Wishes). If it is necessary, we do <i>partuturon</i> (kinship system) with the clan of the village founder. The contribution of TK does not have any direct relationship but only a part of it. Rural development is more determined by the leadership of village heads and the village budget. With the condition of the district budget today, in which most of it is allocated for salary and operations, a village head will have difficulty doing development. Regional Generated Revenue is relatively small, so it is not easy to make a development plan with the wide area of Tapanuli Utara Regency.
LSM (Non-Government Organizations) and Religious Leaders	TK has been defeated by modernization; it is seen from the green revolution program, which has been introduced since the new Order regime. The Green Revolution made high productive costs and depended on the products of capitalists, which caused farmers to be poorer, and this made rural development a constraint. This Green Revolution also causes environmental damage and biodiversity, crickets, grasshoppers, and fireflies are seldom found in villages.
Village and District Facilitators	TK does not directly contribute to rural development and IDM because rural development needs village heads’ skills in rural development plans. Village financial statements and rural development monitoring and evaluation mostly use information technology.
Village-Owned Enterprise (Bumdes) Director	Almost no TK directly contributes to rural development. Even at a certain level, TK such as <i>Dalihan na Tolu</i> (the three-legged stove consists of <i>hula-hula</i> , <i>dongan sabutuha</i> , and <i>boru</i>) impedes rural development because the defeated village head candidate will give orders to his close relatives not to shop on the Bumdes store.

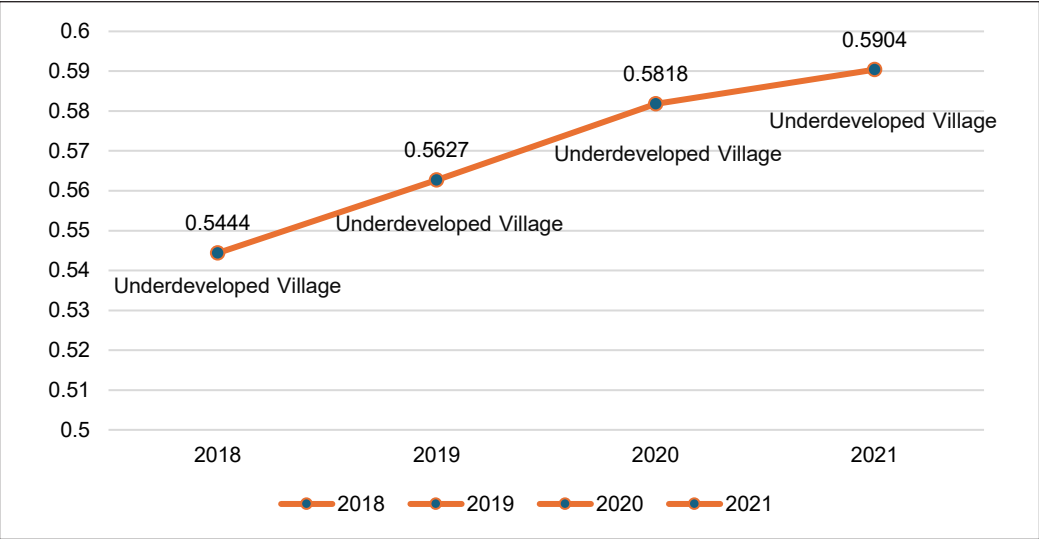


Figure 3. Village Development Index of North Tapanuli Regency 2018-2021
Note: Village Development Index consists of 5 (five) scale: 1) **Very Underdeveloped Village** (< 0.491); 2) **Underdeveloped Village** (> 0.491 and < 0.599); 3) **Developing village** (> 0.599 and < 0.707); 4) **Intermediate Village** (> 0.707 and < 0.815); and 5) **Self-Reliant Village** (> 0.815)

used as the poverty extrication approach effectively and in a short time. In other words, TK only plays its role in managing some sectors (segmented and partial) of life such as in environment and forest conservation (Datta & Starlight, 2024; Indrawardana, 2013; Ismail et al., 2018; Jiao et al., 2024; Senoaji, 2004; Taylor et al., 2024), in managing farmland by working together (Klopotek et al., 2023), in medical/herbal medication or medical plant (Gumisiriza et al., 2023; Ismail, Lubis, et al., 2019; Ismail, Manurung, et al., 2019; Manurung et al., 2017; Van Damme et al., 2024), in managing giving birth in women (Alqathama et al., 2023; Dlamini et al., 2023), and in managing tourism and tourists (Manurung et al., 2020; Revida et al., 2022). Another complexity is whether TK can be replicated in other areas and whether the idea, concept, and thought of TK can be used in other areas. Secondly, to handle these weaknesses, development practitioners attempt to integrate TK with hybrid knowledge. However, hybridization also faces problems such as the involvement of the local people and how the correlation of power between the local people and the Western scientists. Thirdly, the Western domination caused by Western conquering sciences on TK has made the meaning of “local” lose its essence. It has been forced to be used in the general sense and can be universally utilized like Western knowledge. In the extreme, it can be modified to meet the needs of capitalism and liberalism. The commercialism of knowledge and inheritance of the indigenous/local people

by Western intellectuals is considered “an insult to sacred things” (Greene, 2004) and unscrupulous ways on behalf of the strategy and mitigation of the poverty of local or indigenous people (Ertman & Williams, 2005).

This study strengthens the previous result of a study which concludes that even though culture is considered to have a contribution to economic development, there is no concrete culture that possesses a causality relation between culture and economic growth, so its visibility should be continuously increased in societies (Titko et al., 2023). The role of culture in development is still a mystery in the black box, especially the role of cultural heritage, which seems to have an effect that still has not been identified (Tubadji & Pelzel, 2015). (The inconsistencies of the role of culture in encouraging development are caused by some factors as follows: 1) even though almost all writers explain cultural indicators, the indicator which has been made is not seriously supported by a strong theoretical foundation, 2) most of the writers talk about the relationship between culture and development, but cultural indicator which directly contributes to development, which is usually called as a cultural turn undergoes errors. In other words, every person who still believes and justifies that all cultures which are thick descriptions are still used as value, orientation, and attitude of every individual in a society. All cultural elements are still considered the foundation of people’s lives even though, in many ways, a certain culture is not practiced by people

anymore in social life. It remains a cultural heritage (CH) because it has been defeated by other cultures which are considered more compatible with the people's economic production method.

Meanwhile, some other cultural elements still survive and are used as values, orientation, and attitudes in behaving; they are called cultural living (CL), as explained by (Tufts, 2003). Two things cause this reality: 1) the meaning of the culture is clear for everyone, and 2) the impact of culture on economic growth is not clear enough because study and cultural framework are not integrated, which will eventually cause inconsistent empirical evidence. The ups and downs of TK in encouraging development occur because the universal model of knowledge and the scientific rationalism of Western intellectual agents in the development practices have removed native communities (Jakes, 2024; Shivani et al., 2022). It seems that TK has undergone ups and downs because of the factors of colonization and the existence of the Heavenly religions (the three revealed religions: Islam, Christianity, and Judaism). Opposing Western modernization and development is expressed by ethnic groups by reconstructing the glorification of traditional identity in the past, not merely the recognition from the state for the indigenous people in the post-reformation era. They only use the strategy of self-identification to confirm the difference in their group position from the other groups (Suyadnya, 2019).

The power relationship between modernization and traditional knowledge

is a battle of cultures and civilizations that has colored human civilization for a long time. Syncretism, mixing, hybridization, connectivism, and cross-bonding between two or more cultures and civilizations are inevitable realities and cultural processes (Simanihuruk et al., 2023; Winarto, 2014). At a more macro level, this is what Huntington calls the clash of civilizations (Huntington, 2011) which then ultimately ends in the end of history (Fukuyama, 1992). The same thing happened between the culture of modernization and traditional knowledge in North Tapanuli Regency, which ultimately weakened traditional knowledge. Traditional knowledge in many cases is no longer the main spirit to encourage development. Traditional knowledge only regulates daily life such as marriage and death. The existence and resilience of culture in many ways is determined by whether the culture can still become aspirations, values that influence the attitudes and behavior of humans.

This study reinforces the results of previous studies that conclude that while culture is seen as contributing to economic development, there is no concrete culture that has a causal relationship between culture and economic growth (Ortega-Villa & Ley-Garcia, 2018). The role of culture in development is still a mystery in a black box (Tubadji & Pelzel, 2015). The inconsistency in the role of culture in promoting development is motivated by the following factors. First, although all authors explain cultural indicators, the indicators are not supported by a strong

theoretical foundation. Second, most authors discuss the relationship between culture and development, but the cultural indicators that contribute directly to development are not very clear (Ortega-Villa & Ley-Garcia, 2018).

CONCLUSION

Briefly, it can be concluded that either modern values or TK has not become a village head's ethos and culture which are expected to be able to increase village IDM in Tapanuli Utara Regency. Rural development, in many things, is merely a pseudo-development or bubble development. Besides that, it can also be concluded that *huta* (village) which used to be considered having local wisdom in managing its self-governing capacity as it has been described above, is not found anymore. Most of the TK is only used to manage daily traditions such as traditional wedding ceremonies, funerals, and removing ancestors' bones. Today, TK is only a heritage and past remembrance, whereas the spirit, which becomes the core of knowledge in it, does not have meaning anymore.

Nevertheless, the synchronization of TK and Western worldview can still be bridged with various efforts as they are made by Datta & Starlight (Datta & Starlight, 2024) using de-colonial conversation methods such as connecting the knowledge system of the traditional people from generation to generation. It is often disturbed by the history of injustice and cultural assimilation. Besides that, recognizing and appreciating people's knowledge, empowering traditional people, and strengthening cultural diversity

are very important for social cohesion and security (Cuerrier et al., 2015). Bringing together traditional communities, scientists, and policymakers collaboratively is expected to be able to solve various problems found in multiple indigenous people (Kulundu et al., 2020) and bridging the knowledge of indigenous people and Western expertise can work together toward sustainable development and conservation by considering scientific data and the perspectives of indigenous people.

Therefore, it can be concluded that development practitioners and policymakers must eschew monolithic thinking in the design of development initiatives. Such rigid thinking, which regards traditional knowledge as a mere lever for advancement amidst the inherent weaknesses and challenges posed by the current trajectory of modernization that Indonesia is pursuing, is fundamentally flawed. The notion of modernization, often heralded as a universal remedy for poverty, and the subsequent nostalgia for traditional knowledge—once the cornerstone of rural development—constitute a form of romanticism, if not outright escapism. Development practitioners ought to adopt a dialectical, hybrid, connective, and syncretism approach, adeptly amalgamating values that are not only compatible but also substantively conducive to fostering economic growth.

Implications of the Study

Several factors cause the lagging IDM of North Tapanuli Regency. First, in many

cases, modernization values have not been internalized and have not become the orientation and behaviour attitudes of village heads and villagers in general. Rural values intertwined in kinship politics and farmers' economic morals are still the central values in village life. These values are, to some extent, incompatible with the values of modernization itself. Secondly, in many cases, TK is no longer a value, orientation, and attitude in village governance as it used to be, as explained by several experts previously. In many cases, TK is only left to regulate the affairs of daily social life in rural areas, such as traditional events of death, marriage, and the transfer of bones to the family tomb, better known as *tugu* (family mausoleum). Still practiced is the customary system for electing village heads, known as the "*si soli-soli*" tradition. This system is still practiced in several villages and is sometimes contested by customary leaders in the village itself. Although the village head election system is still in place in some villages, the government of North Tapanuli District has not issued regulations on the recognition of customary villages, except for the recognition of customary land rights. In contrast, the province of Bali changed the name of Adat villages to Pekraman Villages based on Bali Provincial Regulation No. 3/2001. This regulation was instrumental in expanding the structure and authority of customary villages in Bali (I Nyoman Surpa Adisastra & Bagus Ade Tegar Prabawa, 2024). As a result, indigenous villages in Bali are more autonomous, and the leadership of indigenous village heads is

more functional. Likewise, the Ammatoa Kajang indigenous community village in Bulukumba Regency, South Sulawesi Province, introduced ethno-development. In this Indigenous village, TK or local wisdom has improved village development (Rosyanafi et al., 2023).

Theoretical Implication

Theoretically, the implications of this study demonstrate and reinforce the results of previous studies that conclude that although culture is seen as contributing to economic development, no concrete culture that has a causal relationship between culture and economic growth has been found (Chan, 2024; El Hussein et al., 2024; Mažeikaitė, 2024). The role of culture in development is still a black-box mystery (Tubadji & Pelzel, 2015). The Pandora's black box that culture contributes significantly and concretely to development is yet to be seen in alleviating IDM backwardness in the North Tapanuli Regency (S. Harahap & Alfikri, 2023). Interaction and communication between global culture and local culture must be procedural (Kryvobok et al., 2023) and interconnected (Kleden, 2024), crisscrossing and intertwining, ultimately resulting in a hybrid culture. In many cases, over a while, certain cultures are no longer practiced by individuals or communities in social life and (only) remain as cultural heritage (CH) because they are conquered by other cultures that are seen as more compatible with the way of economic production in the community order. Meanwhile, some other cultural elements survive and are still

used as values, orientations, and attitudes in behavior, referred to as cultural living (CL). Other implications of this study indicate the need for a hybrid culture, which selects and utilizes cultural elements that have been traditionally retained to be combined, selected, and adapted to contemporary methods.

Practical Implication

Practically, development practitioners and policymakers urgently and importantly consider hybrid thinking and connectivism in integrating cultural values in development in general and village development in particular. In other words, traditional knowledge values such as “*si soli-soli*” in the election of village heads in several villages in North Tapanuli Regency must be maintained. For this customary law system for village head elections to be sustainable, it needs to be legitimized through district or regent regulations to be binding. Likewise, the traditional knowledge of “*sakke hudali*” and “*lubuk larangan*” needs to be maintained and even strengthened to maintain the environment amid climate change that is threatening in front of our eyes now. Because culture is a thick description, development practitioners must choose layers of culture (whether from modernization values or traditional knowledge) that can become the driving spirit of development. Because we live in a globalized world at one time, we also come from and grow from local culture or traditional knowledge at another time. As far as humans cross the global culture,

they will return to their local cultural roots, back to the “house of Mumbi” (Nyumba ya Mumbi), a metaphor put forward by Isaacs when explaining the Kikuyu tribe in Kenya. Isaacs emphasizes that ethnic identity is not just a social construction but has a deep emotional and psychological dimension for every entity (Isaacs, 1989). In other words, village heads must think synthetically and hybrid in adopting cultural values that can encourage development amidst the current allocation of village funds transferred from the central government.

Limitations and Recommendations for Future Research

Village development is an effort to improve the quality of life and living for the most excellent welfare of the village community and to reduce poverty through the fulfillment of basic needs, development of village facilities and infrastructure, development of local economic potential, sustainable utilization of natural resources, and the environment. The implementation of village development is regulated in Law No. 6/2014 on Village Governance, which is carried out systematically, consistently, and sustainably with facilitation, supervision, and assistance. Based on this law, the Village Head has a great responsibility as the organizer of government affairs, the community, and the implementation of village development. However, in practice, it is not easy to diagnose which role is more prominent: the village head as head of government affairs or the head of customs in various community activities, by the same

person. It is a complex and challenging task for researchers to identify these roles. Future research should focus on either modern village governance based on the law or establishing village governance based on the long-standing TK practiced by the community.

Therefore, to avoid questions about the above TK related to village governance, several research recommendations should be made such as first, the North Tapanuli government needs to initiate regulations, either in the form of local government regulations or regent regulations on village head elections, especially in villages that still implement the “*si soli-soli*” customary system/law. This regulation is essential as a legacy for village officials and election organizers to avoid ambiguity in conducting village head elections. Second, a more in-depth study is needed to explore why fiscal decentralization at the village level has not been able to increase the IDM in North Tapanuli regency. Thirdly, it is necessary to rediscover what values can become *Élan vital* and *raison d’être* of development drivers so that fiscal decentralization at the village level contributes significantly to village development. Thus, budgetary decentralization does not only become a “bubble jet” or “pseudo” development. Fourth, further research is needed on the political and cultural relations between the village government and the supra-state above because even though the village government is autonomous, it does not necessarily escape the grip of the shadow.

The limitations of this research are related to the generalization of the research conclusions, which only relied on in-depth interviews with seven key informants. The conclusions drawn from this study only apply to the research locus and do not necessarily describe other districts and villages in Indonesia. Future research that might be more interesting would look at the leadership of village leaders in Tapanuli regency in planning, implementing and monitoring the use of the large amount of village funds. This is important because in the midst of radical changes in fiscal decentralization, village heads are managed by village heads whose education is mostly only at the senior high school level and who are relatively old (over 40 years old). In short, radical decentralization but managed by old human resources (New Wine into Old Wine skins).

ACKNOWLEDGMENT

The authors extend their profound gratitude to all informants who generously agreed to participate in the interviews, as well as to the research assistants who worked diligently in the field to collect the research data.

REFERENCES

- Alqathama, A., Alhomoud, F., Alsadiq, Y., Almekhadi, A., Fallatah, W., Alharbi, O., Abdulhakim, B., Alsubhi, R., & Alluqmani, R. (2023). Complementary and alternative medicine from the perspective of pregnant and lactating women. *European Journal of Integrative Medicine*, 58, 102217. <https://doi.org/10.1016/j.eujim.2022.102217>

- Anderson, B. R. O. (1990). *Language and power exploring political cultures in Indonesia*. Cornell University Press. <https://doi.org/10.7591/9781501720604>
- Ginting, S. S., Simanjorang, M., & Gultom, S. (2024). Diversed ethnomathematics explorations of batak cultures in north sumatera. *Ethnomathematics Journal*, 5(1), 1-13. <https://doi.org/10.21831/ej.v5i1.69259>
- Cattles, L. (2001). *Kehidupan politik suatu keresidenan di Sumatera: Tapanuli 1915-1940*. Kepustakaan Populer Gramedia.
- Chan, S. (2024). *Culture, Economic growth, and interstate power shift*. Cambridge University Press. <https://doi.org/10.1017/9781009465540>
- Cobb, R. (2012). Modernization from above: Social mobilization, political institutionalization and instability: A case study of Iran (1953–1979) [Doctoral dissertation, University of South Florida]. University of South Florida Scholar Commons. <https://scholarcommons.usf.edu/etd/4300>
- Creswell, J. W., & Poth, C. N. (2016). *Qualitative Inquiry and Research Design Choosing Among Five Approaches*. SAGE Publication.
- Cuerrier, A., Turner, N. J., Gomes, T. C., Garibaldi, A., & Downing, A. (2015). Cultural Keystone Places: Conservation and Restoration in Cultural Landscapes. *Journal of Ethnobiology*, 35(3), 427–448. <https://doi.org/10.2993/0278-0771-35.3.427>
- Datta, R., & Starlight, T. (2024). Building a Meaningful Bridge Between Indigenous and Western Worldviews: Through Decolonial Conversation. *International Journal of Qualitative Methods*, 23. <https://doi.org/10.1177/16094069241235564>
- Dhewanto, W., Ratnaningtyas, S., Permatasari, A., Anggadwita, G., & Prasetyo, E. A. (2020). Rural entrepreneurship: Towards collaborative participative models for economic sustainability. *Entrepreneurship and Sustainability Issues*, 8(1), 705–724. [https://doi.org/10.9770/jesi.2020.8.1\(48\)](https://doi.org/10.9770/jesi.2020.8.1(48))
- Dlamini, N. S., Darong, G. G., & Nkwanyana, N. M. (2023). South African women’s use of African traditional medicine during pregnancy: A scoping review. *African Journal of Reproductive Health*, 27(11), 91–98.
- El Husseiny, I. A., Al Samman, A., Mansour, S., & Ibrahim, F. (2024). How do cultural values affect economic growth? An empirical evidence from world values survey (1994–2021). *Review of Economics and Political Science*. <https://doi.org/10.1108/REPS-02-2023-0012>
- Ertman, M. M., & Williams, J. C. (2005). *Rethinking commodification: Cases and readings in law and culture*. New York University Press.
- Fajarini, U. (2014). Peranan kearifan lokal dalam pendidikan karakter. *Sosio Didaktika: Social Science Education Journal*. <https://doi.org/10.15408/sd.v1i2.1225>
- Feith, H. (2006). *The decline of constitutional democracy in Indonesia*. Equinox Publishing.
- Fukuyama. (1992). *The end of history and the last man*. Free Pass.
- Geertz, C. (1992). *The interpretation of cultures: Selected essays*. *Tafsir kebudayaan / Clifford Geertz; translated by Francisco Budi Hardiman*. Penerbit Kanisius.
- Ginting, A. H., Widianingsih, I., Mulyawan, R., & Nurasa, H. (2024). Village fund program in Cibeureum and Sukapura village, Bandung Regency, Indonesia: Problems, risks, and solutions. *Cogent Social Sciences*, 10(1). <https://doi.org/10.1080/23311886.2024.2303452>
- Gomes, L. A. V., Vasconcellos, L., & Hamza, K. M. (2023). Editorial: A roadmap for data analysis in qualitative research. *RAUSP Management Journal*, 58(3), 190–196. <https://doi.org/10.1108/RAUSP-07-2023-274>

- Greene, S. (2004). Indigenous people incorporated? *Current Anthropology*, 45(2), 211–237. <https://doi.org/10.1086/381047>
- Gumisiriza, H., Olet, E. A., Mukasa, P., Lejju, J. B., & Omara, T. (2023). Ethnomedicinal plants used for malaria treatment in Rukungiri District, Western Uganda. *Tropical Medicine and Health*, 51(1), 49. <https://doi.org/10.1186/s41182-023-00541-9>
- Harahap, A. (2022, April 5). *Merawat tradisi ratusan tahun Sakke Hudali di Tapanuli Utara* [Preserving the Centuries-Old Tradition of Sakke Hudali in North Tapanuli]. Mongabay Indonesia. <https://www.mongabay.co.id/2022/04/05/merawat-tradisi-ratusan-tahun-sakke-hudali-di-tapanuli-utara/>
- Harahap, S., & Alfikri, M. (2023). Development politics of Dalihan Na Tolu in the social perspective of batak angkola people. *Jupiis: Jurnal Pendidikan Ilmu-Ilmu Sosial*, 15(1), 101–110. <https://doi.org/10.24114/jupiis.v15i1.44462>
- Haverkort, B., & Reijntjes, C. (2010). Diversities of knowledge communities, their worldviews and sciences: On the challenges of their co-evolution. In S. M. Subramanian & B. Pisupati (Eds.), *Traditional knowledge in policy and practice: Approaches to development and human well-being* (pp. 1-402). United Nations University Press.
- Huntington, S. P. (2011). *The Clash of Civilizations and the Remaking of World Order*. Simon & Schuster.
- I Nyoman Surpa Adisastra, & Bagus Ade Tegar Prabawa. (2024). Strengthening the role of customary villages in spiritual tourism management in Bali. *Ride: Journal of Cultural Tourism and Religious Studies*, 2(1), 54–63. <https://doi.org/10.25078/ride.v2i1.3623>
- Indraningsih, K. S., Nahraeni, W., Agustian, A., Gunawan, E., & Syahyuti. (2021). The impact of the use of village funds on sustainable agricultural development. *E3S Web of Conferences*, 232, 01018. <https://doi.org/10.1051/e3sconf/202123201018>
- Indrawardana, I. (2013). Kearifan lokal adat masyarakat sunda dalam hubungan dengan lingkungan alam. *Komunitas* [Local wisdom of Sundanese customary society in relation to the natural environment]. *International Journal of Indonesian Society and Culture*, 4(1). <https://doi.org/10.15294/komunitas.v4i1.2390>
- Irawan, N. (2017). *Tata Kelola Pemerintahan Desa Era UU Desa*. Yayasan Pustaka Obor Indonesia.
- Isaacs, H. R. (1989). *Idols of the tribe: Group identity and political change*. Harvard University Press.
- Ismail, R., Berutu, L., Rani, Z., & Zulkarnain, I. (2018). Indonesia's new horizon for sustainable forestry: Ulayat right division based on local wisdom in Batak Pakpak ethnicity. *International Journal of Agricultural and Statistical Sciences*, 14(2).
- Ismail, R., Lubis, S. K., Manurung, R., Sihotang, D., & Simanjuntak, J. F. (2019). Namalo - traditional healer in batak toba: Community knowledge and herbs for medicine. *International Journal of Scientific and Technology Research*, 8(9).
- Ismail, R., Manurung, R., Sihotang, D., Munthe, H. M., & Tiar, I. (2019). Specialization of skills and traditional treatment methods by namalo in batak toba community, Indonesia. *Studies on Ethno-Medicine*, 13(4). <https://doi.org/10.31901/24566772.2019/13.04.593>
- Jakes, V. (2024). The Role of Traditional Knowledge in Sustainable Development. *International Journal of Humanity and Social Sciences*, 3(2), 40–55. <https://doi.org/10.47941/ijhss.2079>
- Jiao, W., Yang, X., & Li, Y. (2024). Traditional knowledge's impact on soil and water conservation in mountain agricultural systems: A case study of Shexian Dryland stone terraced System, China. *Ecological Indicators*, 159, 111742. <https://doi.org/10.1016/j.ecolind.2024.111742>

- Kassam, A. (2002). *Ethnotheory, ethnopraxis Ethnodevelopment in the Oromia regional state of Ethiopia*. Routledge.
- Kleden, P. B. (2024). The God of Process – the Interconnectedness of the World The Process Theology as A Frame for a Glocal Spirituality. *JURNAL LEDALERO*, 23(1), 1. <https://doi.org/10.31385/jl.v23i1.552.1-22>
- Klopotek, B., Claybrook, T., & Scott, J. (2023). Indigenous companion planting in the great churn: Three sisters in Kalapuya ilih. *Environment and Planning E: Nature and Space*, 6(3), 1889–1904. <https://doi.org/10.1177/25148486221126618>
- Kryvobok, K., Kotelnikova, I., & Kinas, I. (2023). Intercultural features in the management communication process. *Actual Problems of Innovative Economy and Law*, 2023(1–2), 18–24. <https://doi.org/10.36887/2524-0455-2023-1-3>
- Kulundu, I., McGarry, D. K., & Lotz-Sisitka, H. (2020). Think Piece: Learning, Living and Leading into Transgression – A reflection on decolonial praxis in a neoliberal world. *Southern African Journal of Environmental Education*, 36. <https://doi.org/10.4314/sajee.v36i1.14>
- Mahendro, A. Y. (2013). Menggantung ke “Atas”: Perkumpulan Sosial Perdesaan di Era Desentralisasi. *Masyarakat Jurnal Sosiologi*, 18(2). <https://doi.org/10.7454/MJS.v18i2.1233>
- Malau, A. G., & Hotman, J. (2023). The Influence of Village Fund on the Job Market and Economic Growth in Dairi Regency. *International Journal of Membrane Science and Technology*, 10(3), 311–318. <https://doi.org/10.15379/ijmst.v10i3.1536>
- Manurung, R., Ismail, R., & Daulay, H. (2017). Namalo - Traditional healer in Batak Toba Society, Indonesia: Knowledge of drug and traditional treatment process. *Man in India*, 97(24), 369–384.
- Manurung, R., Ismail, R., Munthe, H. M., & Nababan, T. S. (2020). Batak toba empowerment in lake toba tourism area, North Sumatera, Indonesia: Analysis of entrepreneurship potential in batak women. *International Journal of Scientific and Technology Research*, 9(3).
- Mažeikaitė, K. (2024). Using empirical evidence to analyse the impact of culture on socio-economic development in europe. *Journal of Empirical Economics and Social Sciences*. <https://doi.org/10.46959/jeess.1367780>
- Ortega-Villa, L. M., & Ley-Garcia, J. (2018). Analysis of Cultural Indicators: A Comparison of Their Conceptual Basis and Dimensions. *Social Indicators Research*, 137(2), 413–439. <https://doi.org/10.1007/s11205-017-1588-2>
- Portes, A. (2015). The Sociology of Development. *Sociology of Development*, 1(1), 20–42. <https://doi.org/10.1525/sod.2015.1.1.20>
- Revida, E., Ismail, R., Lumbanraja, P., Trimurni, F., Sembiring, S. A. B., & Purba, S. (2022). The Effectiveness of Attractions in Increasing the Visits of Tourists in Samosir, North Sumatera. *Journal of Environmental Management and Tourism*, 13(8). [https://doi.org/10.14505/jemt.v13.8\(64\).16](https://doi.org/10.14505/jemt.v13.8(64).16)
- Rimawan, M., & Aryani, F. (2019). Pengaruh Alokasi Dana Desa Terhadap Pertumbuhan Ekonomi, Indeks Pembangunan Manusia Serta Kemiskinan di Kabupaten Bima. *Jurnal Ilmiah Akuntansi Dan Humanika*, 9(3), 287–295.
- Rivero, O. de. (2001). The Myth of Development (Non-Viable Economies and The Crisis of Civilization). In *Zed Book*. Zed Books.
- Rostow, W. W. (1991). *The Stages of Economic Growth A Non-Communist Manifesto*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511625824>
- Rosyanafi, R. J., Roesminingsih, M. V., Susilo, H., Nusantara, W., & Harris, T. (2023). Unveiling the enigma of local wisdom-based tourism development in Surowiti Village, Gresik Regency. *NUSRA: Jurnal Penelitian Dan*

- Ilmu Pendidikan*, 4(4), 836–844. <https://doi.org/10.55681/nusra.v4i4.1640>
- Said, E. W. (1994). *Representations of the Intellectual: The 1993 Reith Lectures*. Pantheon.
- Senoaji, G. (2004). Pemanfaatan Hutan dan Lingkungan oleh Masyarakat Baduy di Banten Selatan. *Manusia Dan Lingkungan*, XI(3).
- Shen, Y., Zhu, Y., & Yang, R. (2024). Integrating traditional knowledge of non-Western humanities and social sciences: a research agenda through the Chinese lens. *Studies in Higher Education*, 1–15. <https://doi.org/10.1080/03075079.2024.2407051>
- Shivani, S., Aparna, A., & Mishra, S. (2022). Traditional knowledge. *International Journal of Health Sciences*, 6(S5), 1570–1581. <https://doi.org/10.53730/ijhs.v6nS5.8916>
- Silalahi, U. (2014). *Pemerintahan (Harajaon) dan Birokrasi Tradisional Masyarakat Toba*. Bina Media Perintis.
- Simanihuruk, M., Ismail, R., Sitorus, H., & Zuska, F. (2023). Negotiating Tradition and Modernity: A Case Study of Hybrid Political Cultures in Village Governance, North Tapanuli, Indonesia. *International Journal of Sustainable Development and Planning*, 18(12), 3955–3963. <https://doi.org/10.18280/ijstdp.181226>
- Solivetti, L. M. (2005). W.W. Rostow and His Contribution to Development Studies: A Note. *Journal of Development Studies*, 41(4), 719–724. <https://doi.org/10.1080/00220380500092903>
- Subramanian, S. M., & Pisupati, B. (2010). *Traditional Knowledge in Policy and Practice: Approaches to Development and Human Wellbeing*. United Nations University.
- Suyadnya, I. W. (2019). Self-Identification and Repositioning of the Tenganese in the Discourse of Adat Community in Bali. *MASYARAKAT: Jurnal Sosiologi*, 24(1). <https://doi.org/10.7454/mjs.v24i1.10183>
- Taylor, M., Davison, A., & Harwood, A. (2024). Local Ecological Learning: Creating Place-based Knowledge through Collaborative Wildlife Research on Private Lands. *Environmental Management*, 73(3), 563–578. <https://doi.org/10.1007/s00267-023-01907-9>
- Titko, J., Svirina, A., Astike, K., Uzule, K., Shina, I., & Zarina, V. (2023). Impact of Country-Level Cultural Development on the Achievement of Sustainable Development Goals. *Business, Management and Economics Engineering*, 21(02), 269–278. <https://doi.org/10.3846/bmee.2023.19423>
- Tubadji, A., & Pelzel, F. (2015). Culture based development: measuring an invisible resource using the PLS-PM method. *International Journal of Social Economics*, 42(12), 1050–1070. <https://doi.org/10.1108/IJSE-01-2014-0005>
- Tufts, S. (2003). Florida, Richard 2002. The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life. New York: Basic Books, 404p. *Just Labour*. <https://doi.org/10.25071/1705-1436.180>
- Van Damme, L., Chatrou, L., de la Peña, E., Kibungu, P., Bolya, C. S., Van Damme, P., Vanhove, W., Ceuterick, M., & De Meyer, E. (2024). Plant use and perceptions in the context of sexual health among people of Congolese descent in Belgium. *Journal of Ethnobiology and Ethnomedicine*, 20(1), 20. <https://doi.org/10.1186/s13002-024-00662-3>
- Vergouwewen, J. C. (2004). *Masyarakat dan hukum adat Batak Toba*. LKiS Yogyakarta.
- Winarto, Y. T. (2014). Pendekatan Prosesual: Menjawab Tantangan dalam Mengkaji Dinamika Budaya. *Antropologi Indonesia*, 60. <https://doi.org/10.7454/ai.v0i60.3354>