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Inclusion of Local Resources in Secondary Level School Education in Rupandehi District Nepal

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Abstract:
This study examines the integration of locally available resources into secondary school education in Rupandehi District, Nepal. Employing a qualitative hermeneutic phenomenological approach, data were collected through interviews, focus groups, classroom observations, and participatory rural appraisal with purposively selected stakeholders. Thematic analysis was conducted through iterative coding and narrative construction. Findings reveal that despite the availability applicable local resources including agricultural, cultural, and ecological assets, schools follow a rigid, theory-based curriculum with minimal contextual relevance or community involvement. Barriers include inadequate teacher training, institutional rigidity, and weak school-community collaboration. The study calls for curriculum reform that promotes experiential, resource-based learning aligned with local contexts. Strengthening participatory pedagogy and leveraging local knowledge can enhance skill development, educational relevance, and sustainable rural development.

Keywords: Indigenous knowledge, local resources, resource-based education, experiential learning, local curriculum, vocational skills.

INTRODUCTION

Education, learning, and lived experiences are intrinsically interrelated, progressing simultaneously to shape human development. Educational theorists have long emphasized that learning is not merely the acquisition of knowledge but a transformative process grounded in interaction, reflection, and action. John Dewey (1916), a pioneering thinker in progressive education, asserted that education is a continuous process of experience where individuals revise and reorganize their previous experiences to develop practical competencies by adapting to and interacting with their environment. According to Dewey, education should nurture the inherent potential of individuals by engaging them in meaningful learning activities that connect knowledge to real-life applications (p. 61).

Agrawal (1992) reinforces this idea by characterizing the productive dimension of education as a mechanism for empowering individuals to solve problems through the acquisition and application of practical skills (p. 33). Such perspectives highlight that modern educational ideals are not confined to theoretical instruction but are centered on functional learning, productivity, and skill development. In support of this notion, Dewey (1997) further elaborated that the primary aim of education is to prepare the youth for future societal responsibilities and personal success by facilitating the mastery of organized bodies of knowledge and structured skillsets (p. 18).

Extending this thought, Crow and Crow (2008) articulated that education is a dynamic force shaping an individual's physical, mental, emotional, social, and moral development. This comprehensive growth fosters practical values, productive behaviors, and socially relevant skills that are instrumental in community and

national development (p. 53). Their assertions position education as a lifelong developmental process, not merely limited to institutionalized learning but encompassing the holistic transformation of the learner.

From a critical standpoint, Smith (2006) argued that education, while serving as a catalyst for development, can also become a contributor to inequality if it fails to address the nuances of cultural and contextual diversity (p. 29). His viewpoint underscores the dual role of education: it can either serve as a solution to societal challenges or perpetuate systemic issues if educational policies and practices are not responsive to local diversities. Therefore, the inclusive and contextual adaptation of educational systems is necessary to ensure that they support equitable development across all segments of society.

Smith's observation also reveals that local diversities manifested in varied knowledge systems, cultural traditions, skills, and lived experiences are not hindrances but valuable resources. When education systems harness these diversities effectively, they promote social cohesion and innovation. However, for such integration to occur, policymakers must navigate the complexity of designing curricula that accommodate multiple identities, learning styles, and cultural perspectives. This highlights the crucial and often underestimated role of diversity in shaping meaningful and equitable education.

In light of the above perspectives, it becomes evident that the development of practical and context-sensitive skills among students depends heavily on their engagement with local environments and the resources embedded within those socio-cultural settings. The socio-cultural context includes individual and collective identities related to race, ethnicity, gender, class, religion, age, physical ability, and other characteristics that influence how people acquire and apply knowledge. As UNESCO (2011) has emphasized, modern education must be responsive to such diversity and should incorporate task-based and event-oriented learning strategies that reflect the realities of learners' communities. These approaches rely on social learning models that involve interaction with local knowledge systems, environments, and available resources, ultimately fostering relevant and functional education.

STATEMENT OF THE PROBLEM

Nepal, often celebrated as a natural amphitheater, is a country rich in biodiversity, cultural heritage, and ecological potential. With its diverse topography stretching from the high Himalayas to the fertile plains of the Terai, the country is home to a vast array of natural resources and indigenous knowledge systems. These resources and traditions offer immense potential for national development, tourism, ecological conservation, and community empowerment. Nepal is frequently described as a living repository of untapped natural wealth and cultural practices that, if properly harnessed, could serve as pillars for economic and educational transformation.

Despite this abundance, a significant disconnect persists between Nepal's education system and the utilization of local resources. While local communities continue to demonstrate traditional expertise in agriculture, craftsmanship, herbal medicine, and environmental management, such knowledge rarely finds a place in formal curricula. Dewey's model of experience-based and activity-centered learning is notably absent from mainstream educational policies and classroom practices. Instead of drawing on these local strengths, educational content remains heavily centralized and detached from the socio-economic realities and opportunities that surround learners in their immediate environments.

As noted by Dhakal and Koirala (2006), Nepal's national curriculum fails to sufficiently incorporate locally available skills, indigenous knowledge, and the practical engagement of learners with natural resources. This neglect has resulted in a growing gap between education and employability, leading to an underdeveloped workforce lacking in productive and contextually relevant skills. Consequently, the country

finds itself in a paradoxical situation: while rich in resources and manpower, Nepal remains dependent on imported goods and external expertise to meet basic developmental needs.

The failure to align education with local realities not only undermines the development of skilled manpower but also contributes to the erosion of indigenous practices and local knowledge systems. As education becomes increasingly abstract and theoretical, it distances itself from community life and loses its potential as a transformative tool for sustainable development. Moreover, this disconnect marginalizes indigenous populations, whose knowledge, if integrated into the educational process, could significantly enrich both local and national educational outcomes.

Recognizing these challenges, this study seeks to underscore the importance of integrating local resources into the educational system as a means of developing practical, skill-based learning environments. The emphasis lies in formulating diversified and localized curricula that are responsive to the unique ecological, cultural, and economic contexts of different regions of Nepal. By drawing from locally available materials, practices, and expertise, the proposed model aims to foster a new generation of skilled individuals capable of contributing to their communities and the nation at large.

Specifically, this research highlights the case of a selected study area to examine how the mobilization of local potentialities can inform curriculum development. The goal is to provide rational, evidence-based strategies for the promotion of experience-based education that strengthens local capacity, enhances employability, and contributes to sustainable national development. Ultimately, the study seeks to bridge the existing gap between the resources present within communities and the knowledge imparted through formal education systems.

OBJECTIVES OF THE STUDY

1) To identify and the locally available resources in the selected study areas.
2) To examine the relevance and pedagogical applicability of these local resources in classroom instruction at the secondary school level.
3) To develop strategic framework for the effective integration of identified local resources into the formal school education system.

RESEARCH QUESTIONS

1) What types of local resources natural, cultural, or skill-based are available in the study areas?
2) To what extent are these resources applicable and relevant to classroom instruction in secondary schools?
3) In what ways can local resources be systematically integrated into school education to enhance learning outcomes?
4) What strategies can be proposed for the effective inclusion of local resources in the school curriculum and pedagogy?

REVIEW OF LITERATURE

This chapter critically examines the theoretical foundations that inform the present study. It synthesizes various academic perspectives on the conceptualization of resources, their classification, and their relevance within socio-cultural, population, and educational contexts. The review is structured into five major sub-sections: concept of resources, perspectives of natural resources, population as resource, social resources, and cultural resources. Each sub-section aims to frame the broader discourse on local resource utilization in relation to education, knowledge systems, and development practices.

CONCEPT OF RESOURCES

The term "resource" has evolved significantly across disciplines, increasingly being viewed not merely as tangible material but as a socio-cultural construct influenced by human perception, usage, and interaction. Hope (2002) asserts that nature is considered a nurturer that transforms into a resource only when it acquires value through human utility. In this light, a resource is inherently anthropogenic, encapsulating the notion of nature being appropriated for human purposes (p. 2).

Furthering this conceptualization, The World Bank defines natural resources as "materials that occur in nature and are essential or useful to humans, such as water, air, land, forests, fish and wildlife, topsoil, and minerals" (Collier, 2003, p. 38). The emphasis here lies in the essentiality and utility of these materials for sustaining life and enabling productivity.

The World Trade Report (2010) expands on this idea by viewing natural resources as “stocks of materials that exist in the natural environment that are both scarce and economically useful in production or consumption, either in their raw state or after minimal processing” (p. 46). This definition introduces the idea of scarcity and economic utility, thereby tying the resource concept to market systems and production chains.
Worthington (1964) broadens the notion of resources by including “everything that is derivable for the use or benefit of human from any part of the universe” (p. 2), suggesting that the conceptual boundaries of what constitutes a resource are expansive and potentially limitless.

In a similar vein, Sadhukhan (1986) provides a nuanced perspective by stating that a resource is not merely a material or substance but a product of the interaction between humans and nature aimed at satisfying individual and societal goals (p. 94). This highlights that the value of a resource emerges from its purposeful utility, aligned with societal needs and developmental goals.

From a macro perspective, the World Trade Report (2010) categorizes resources based on their embodiment in goods and services, arguing that “all goods either embody natural resources (e.g., automobiles contain iron ore) or require resources for their production (e.g., food crops require land and water to grow), so all goods could conceivably be classified as natural resources” (p. 46).

It also emphasizes the transformative nature of certain resources such as oil and natural gas, which are converted into energy that underpins the production of nearly every other good or service. This positions resources not merely as static materials but as dynamic elements integral to developmental and industrial processes.

While these institutional definitions offer important insights, they tend to neglect the cosmological or spiritual dimensions of human-nature relationships. This raises critical questions about whether nature should be regarded solely as a utilitarian entity or whether it also holds intrinsic, non-material significance. The absence of a more holistic perspective underscores a gap in the conventional understanding of resources as solely human-centered entities.

PERSPECTIVES OF NATURAL RESOURCES

Natural resources have been classified in numerous ways, reflecting different disciplinary priorities and epistemological approaches. Hussen (2000) categorizes them into renewable and nonrenewable resources, with renewable resources further divided into biological and flow resources. Nonrenewable resources, on the other hand, are classified into recyclable (e.g., metallic minerals) and non-recyclable (e.g., fossil fuels) types (pp. xxv-xxvi).

This binary classification offers a basic framework for understanding the utility and limitations of natural resources, especially in the context of sustainable development. Worthington (1964) provides a more comprehensive classification by dividing resources into physical and biological spheres. The physical sphere includes sources such as solar energy, gravity, mineral deposits, and precipitation, while the biological sphere comprises domesticated and wild flora and fauna, including human beings (p. 2).

Alfieri and Havinga (2007) contribute another classification scheme by identifying four broad categories: mineral and energy resources, soil resources, water resources, and biological resources (p. 1). This multidimensional view aligns more closely with ecological and environmental management practices that consider interdependencies among different resource types.

A resource is considered meaningful only when it is mobilized effectively by human agency. This implies that the existence of a resource is incomplete without its identification, valuation, and utilization by people. As Hope (2002) asserts, the value of a resource is determined through socio-economic behaviors and institutional frameworks that regulate access and ownership (pp. 2-3).

Human behavior, therefore, plays a central role in transforming natural entities into usable resources. Environmental management, as defined by Hope (2002), seeks to create harmonious relationships between human needs and ecological balance. He argues that such management is contingent upon people's attitudes, regulatory mechanisms, and institutional capacity to mediate between nature and society (p. 6).
Consequently, resource mobilization is not a purely ecological or economic process but a socio-cultural one that reflects values, preferences, and power dynamics. These insights are crucial for developing policies that are sensitive to local contexts and that promote inclusive and sustainable resource use.

POPULATION AS RESOURCE

Human population is frequently considered one of the most fundamental resources, especially in the context of national development and productivity. Senyucel (2009) conceptualizes human capital as a composite of individual characteristics such as loyalty, commitment, and expertise, which are invaluable to organizational success (p. 11).

Human capital is unique because, unlike other resources, it possesses cognitive, emotional, and social dimensions that influence its utility. Ehrlich and Ehrlich (1990) caution that while humans are primary agents of development, they can also be the principal drivers of ecological degradation. Therefore, population as a resource is both a potential and a liability, depending on how it is educated, managed, and integrated into the broader socio-economic framework.

Hope (2002) echoes this complexity by arguing that human demands, extraction methods, and cultural expectations significantly influence how resources are utilized (p. 6). These determinants highlight the importance of understanding population not just as a demographic statistic but as a dynamic agent of change and continuity.

Gratton (2015) asserts that human resource is the guardian of the future and the most influential element in transforming culture. This perspective underscores the transformative potential of human capital in reshaping societal norms, economic systems, and environmental stewardship.
Furthermore, Pradhan and Pradhan (2011) emphasize the spatial and situational variability of human-environment interactions. They argue that human activity and resource use differ markedly depending on the geographical, social, and economic context (p. 39).

Hope (2002) elaborates on this by stating that similar elements of nature can yield vastly different outcomes based on human interpretations and uses. For example, water can serve as a drinking source, agricultural input, recreational facility, or energy resource, depending on the user's needs and cultural practices (p. 8).
These interpretations underscore that resources are not inherent in nature but are socially constructed through human experiences, knowledge, and actions. This makes the human population both the principal user and the most significant constituent of the natural resource base.

SOCIAL RESOURCES

Social resources encompass the networks, institutions, and cultural norms that facilitate collective action and resource mobilization. Burch (1971) contends that the origin of natural resources is rooted in society rather than the earth, suggesting that societal values and beliefs filter the meaning attributed to nature (p. 9).
Donenfeld (1914) defines social resources as institutions, associations, and social attitudes that possess shared characteristics and contribute to societal functions (p. 560). These resources provide the structure within which natural resources are utilized, regulated, and distributed.

The significance of social resources lies in their ability to transform physical materials into socially meaningful entities. Donenfeld (1914) argues that the subject matter of social resources extends to every form of human interaction, thereby linking social behavior directly with resource valuation and utility (p. 560).

Tornblom and Kazemi (2012) elaborate this by identifying material and non-material dimensions of social resources such as knowledge, prestige, leadership, and status, which influence how resources are exchanged, distributed, and utilized (p. 1). These dimensions demonstrate that social resources are not just abstract concepts but tangible factors in resource governance.
Greider and Garkovich (1994) emphasize the socio-cultural construction of natural phenomena, arguing that social groups negotiate the meaning of nature through cultural symbols and interactions (p. 2). This implies that what is considered a resource in one society may not hold the same value or utility in another.
These perspectives collectively highlight the interdependence between natural and social systems. The mobilization of natural resources cannot occur in isolation from the social frameworks that define their significance, regulate their use, and mediate conflicts over access and ownership.

CULTURAL RESOURCES

Culture is a vital determinant in how societies perceive, value, and interact with natural resources. It encompasses shared values, norms, beliefs, and practices that shape human behavior and organizational systems. Adhikari (2009) argues that culture profoundly influences work systems and, if neglected, can become a source of resistance to institutional change (p. 82).
Historical analyses support this by showing that national culture significantly impacts employment and resource management practices. Fombrun (1984), as cited in Adhikari (2009), reveals that cultural considerations are essential in shaping employment relations and resource utilization strategies (p. 82).
Pradhan and Pradhan (2011) explain that cultural landscapes are the result of sustained human-nature interaction, reflecting social and economic goals as well as technological capabilities (p. 51). These landscapes serve as living archives of human achievement and ecological adaptation.
Bennett (1976) suggests that humans continually reinterpret natural phenomena into cultural objects, embedding them with symbolic meanings and values (p. 4). This process not only transforms nature but also reinforces cultural identity and social cohesion.
Greider and Garkovich (1994) argue that cultural groups use symbols to define natural resources and integrate them into their everyday lives (p. 8). This symbolic interpretation connects population diversity with educational and skill development opportunities rooted in local contexts.

Thus, cultural resources are integral to understanding and harnessing natural resources in a sustainable and inclusive manner. They provide the ethical, aesthetic, and symbolic foundations that inform how communities engage with their environment.

These cumulative perspectives validate the premise that natural, social, population, and cultural resources are deeply intertwined. Their integrated mobilization can lead to the development of educational models that are both contextually relevant and globally resonant, laying the groundwork for sustainable development rooted in local knowledge systems.

RESEARCH METHODOLOGY

This study adopted a qualitative hermeneutic phenomenological approach, suitable for interpreting the lived experiences of individuals within their sociocultural contexts (Langdridge, 2007; Higgs, 2001). Data were primarily collected through semi-structured and unstructured interviews, allowing for open dialogue and thematic depth. These were supported by field observations, capturing contextual details and participant behaviors. The experience contained data are utilized for proper phenomenological analysis and reflection which is meant to serve the purpose of producing categories to unlock meaning through the process of phenomenological interpretation, analysis, reflection, and writing (Stolz, 2023).

STUDY POPULATION

Participants were purposively selected from three ecological zones of Rupandehi District: arable plains, riverside settlements, and tourism-influenced areas. The sample of 32 individuals included indigenous and migrant residents, chosen based on their involvement in resource use, education, and development. Indigenous participants, with ancestral ties to the land, were seen as custodians of traditional ecological knowledge, while migrants contributed to resource use through alternative livelihoods. The study involved 6 students, 6 teachers, 6 local dwellers, 3 head teachers, 3 social workers, and 3 local representatives, 3 educationists and 2 local government officials with special emphasis on indigenous voices during PRA and school observations.

TOOLS FOR DATA COLLECTION

Resource mapping enabled visual representation and analysis of natural and human-made resources, highlighting access, distribution, and sustainability concerns.

Participatory Rural Appraisal (PRA) methods such as transect walks and seasonal calendars facilitated community engagement and local knowledge gathering.

Field observation offered insights into daily interactions with the environment, socio-economic activities, and indigenous practices, recorded through categorized field notes.

Classroom observation, guided by Resource-Based Learning Theory (Beswick, 1977), examined the integration of local knowledge into formal education.

Interviews encouraged reflective, conversational exchanges to explore personal experiences, with flexibility in structure for deeper insight (Van Manen, 1997; Yin, 2011).

Focus group discussions involved local stakeholders in dialogic reflection on education, development, and resource management (Campbell, 2008).

Multimedia Tools, including photographs, audio, and video recordings, captured non-verbal cues and contextual details, with participant consent.

DATA ANALYSIS PROCEDURES

The collected data were analyzed by carrying out six stages: immersion, understanding, abstraction, synthesis, illumination and illustration of phenomena and integration and critique of findings. I have done

thematic analysis abstracting the information from the relevant categories or themes to obtain an interpretation.

ETHICAL CONSIDERATIONS

Ethical standards were upheld through informed consent, confidentiality, and participant safety (Sim, 1986). Consent procedures emphasized disclosure, comprehension, competence, and voluntariness, with verbal consent accepted when written consent was not feasible. Familiarity with communities helped build trust and transparency. All identities were anonymized using pseudonyms (Flirk, 2009), and contextual details were adjusted to protect participant privacy. These steps ensured the dignity, autonomy, and well-being of all involved.

FINDINGS AND DISCUSSIONS

To understand how local resources can shape educational development, interaction programs were organized across each study site. These sessions included local representatives, school administrators, teachers, and community social workers, and were facilitated through semi-structured, open-ended discussions. The primary aim was to explore stakeholders' views on integrating local potentialities into the education system. Analysis of the discussions revealed the following themes.

UNTAPPED POTENTIAL OF LOCAL RESOURCES

Participants consistently highlighted agriculture and tourism as underutilized sectors in their communities. Despite the region's natural endowments, these resources remain largely neglected in both economic and educational terms. One participant emphasized the abundance of agricultural inputs and the missed economic opportunities:

"We have enough raw materials for all types of farming. If we used them wisely, the country would be economically strong, and people wouldn't need to struggle so much."
(Sunil, Community Member, March 11, 2024)

This sentiment reflects a widespread belief that resource-based self-sufficiency is achievable if appropriate knowledge and skills are imparted through education. However, participants expressed concern over the lack of agricultural education and expertise within local schools:

"Nepal is known as an agricultural country, yet agriculture is not part of our school curriculum. There are no trained teachers, and even if we search for one, we won't find them."
(Krishna, School Administrator, March 11, 2024)

The absence of agricultural training not only limits employment and income-generation opportunities for youth but also undermines local economies, reinforcing a cycle of migration and underdevelopment.

CONNECTION BETWEEN EDUCATION AND LOCAL CONTEXT

Tourism, particularly in historically and culturally significant areas like Lumbini, was also identified as a missed opportunity for educational integration and community empowerment. Stakeholders expressed dissatisfaction with the environmental degradation and lack of community involvement in tourism development:

"Lumbini is the birthplace of Lord Buddha, and yet, the surrounding area is filthy and unbearable. Tourists come and leave disappointed. People migrate for work while our land remains underutilized. This is the result of poor education and lack of awareness."
(Sarita, Social Worker, March 14, 2024)

Field observations in the vicinity of Lumbini Development Trust supported these views, revealing poor sanitation, unmanaged waste, and infrastructural neglect. These findings underscore the urgent need to align local education with tourism management and environmental stewardship, enabling communities to benefit directly from heritage-based development.

Water resources, another key local asset, were also described as being neglected due to technical inefficiencies and lack of community engagement:

"We have lakes and streams, but most of them are dry except during the rainy season. With proper management, they could serve us all year. But we lack the knowledge and skills to make that happen."
(Bishnu, Community Representative, March 14, 2024)

This observation reveals a critical gap in technical education and resource conservation knowledge, leading to the unsustainable use of valuable local assets. The need for practical training and environmental education is thus evident, particularly in rural areas where dependency on natural resources is high.

The inclusion of local potentialities such as Indigenous Knowledge (IK), Indigenous Technologies (I-Tech), and community-based skills emerged as a key thematic concern across all interaction sessions held at the study sites. Participants consistently expressed that, despite the presence of rich local knowledge systems, these remain largely excluded from the formal education system. This disconnect has resulted in the underutilization and marginalization of local resources, weakening their contribution to sustainable development and community empowerment.

RECOGNITION OF INDIGENOUS KNOWLEDGE AND SKILLS

Community members voiced concerns that schools have yet to recognize or mobilize local strengths, particularly in areas such as agriculture and tourism. These sectors, which are deeply rooted in the local context, were seen as pivotal for enhancing both education and livelihood opportunities. One participant reflected on this potential:

"Agriculture and tourism are the most significant resources in our region. With Lumbini nearby, we should be preparing skilled professionals to manage tourism. Likewise, our fertile lands offer year-round agricultural opportunities—education should align with these realities."
(Bhagirath, Student, March 16, 2024)

Bhagirath's insight calls for curriculum reform that integrates local economic resources to develop skilled human capital. The absence of such alignment has left both sectors underdeveloped and disconnected from the education system. A similar critique came from another participant who emphasized the erosion of vocational education:

"Vocational subjects used to be part of the school curriculum in agricultural regions like Rupandehi. Now they've disappeared. Without practical skills, certificates alone won't help our youth get jobs."
(Shyam, Student, January 3, 2024)

This comment draws attention to the employment crisis among youth, caused in part by an overemphasis on theoretical learning and the exclusion of skill-based, pre-vocational training.

NEED OF LOCALIZED AND SPECIALIZED CURRICULUM

Participants also proposed actionable strategies for localizing the curriculum according to community needs and student interests. These proposals focused on introducing optional, skill-based subjects tailored to the economic and ecological characteristics of each area.

"From Grades 7 or 8, schools should offer subjects like electrical repair, watchmaking, and agriculture. For example, Tikuligarh School could specialize in fish farming, while other schools focus on poultry or goat farming based on local needs."
(Shyam, Student, January 3, 2024)

Such models envision schools as specialized centers of practice-based learning, helping students engage in meaningful, context-relevant education. This approach aligns with the concept of place-based education, which fosters both personal growth and community development.

Another creative idea involved establishing rural agricultural campuses that operate as self-sustaining institutions:

"Each district should have an agricultural campus located in a rural village. Students shouldn't pay fees but instead engage in agricultural production. Income generated should support the school. Technical

training like radio repair, watchmaking, or electronics should also be widely introduced."
(Chandra, Local Dweller, January 4, 2024)

This model promotes experiential learning through real-world application, offering dual benefits: skill acquisition and localized economic development. It also addresses migration-related challenges by preparing students for productive engagement in local economies.

FULFILLING THE GAPS BETWEEN INSTITUTIONAL POTENTIAL AND PRACTICE

To explore the feasibility of such models, the researcher visited Paklihawa Campus in Bhairahawa. Although the campus boasts large tracts of fertile land and offers degrees in agriculture and veterinary sciences, practical engagement was found to be minimal. Despite theoretical requirements that one-third of instruction involve field-based activities, students reported participating in only one or two practical sessions per subject. On-site visits confirmed that campus land had been leased to outsiders, animal sheds were abandoned, and fish ponds remained underutilized.

These observations point to a serious disconnect between institutional resources and educational implementation. Without institutional commitment to hands-on learning and meaningful community integration, even well-equipped campuses fail to deliver relevant education. One participant articulated this disconnect succinctly:

"Current investment in education is ineffective because it emphasizes theory over skill. After Grade 7, students should be able to choose vocational tracks. English can remain compulsory, but we need less textbook pressure and more practical engagement."
(Prabin, Teacher, March 15, 2024)

Prabin's critique reflects a broader philosophy of transformative education. He advocates for a shift from rigid, formal systems to more flexible, non-formal modes that promote participatory and practical learning rooted in everyday life. Such an approach, he argues, would not only enhance individual capability but also activate local potential.

EDUCATION AND LABOR MIGRATION: A MISSED OPPORTUNITY

A recurring theme in the discussions was the link between youth unemployment, labor migration, and the absence of vocational education. One participant noted:

"After completing Grade 12, many students migrate to the Gulf for low-skilled labor. Why don't we teach welding or carpentry in schools instead?"
(Ghanashyam, Local Guardian, March 15, 2024)

This reflection exposes a paradox in the current education system: while young people acquire general academic knowledge, they lack marketable skills needed for employment at home. Bridging this gap requires a curriculum that offers early and consistent exposure to technical education. Another stakeholder proposed a decentralized, differentiated schooling model:

"Schools should specialize according to their strengths. A school with land should focus on agriculture, while others can teach electronics or mechanics. This should start after Grade 7."
(Laxmi, Teacher, March 12, 2024)

This proposal reflects a practical, community-oriented vision of education, in which schools align with local resources and serve as specialized hubs for skill development. Such a model would create a more diversified and contextually relevant educational system.

CULTURAL INTEGRATION IN EDUCATION

Finally, participants emphasized the need to preserve and promote local culture through education, particularly in the tourism sector:

"We can connect tourism with Tharu culture local food, dance, and traditions are disappearing. If we train people and include this in the curriculum, we can develop homestays and attract visitors while sustaining our heritage."
(Mukunda and others, March 11, 2024)

This suggestion highlights the potential of cultural education as a tool for economic development, cultural preservation, and identity formation. By integrating such themes into the school curriculum, education can become a vehicle for promoting eco-cultural tourism and inclusive development.

This discussion underscores a strong, community-driven demand for curriculum reform that integrates local knowledge, practical skills, and indigenous potentialities. The current education system's heavy reliance on theory, standardized assessments, and urban-centric models has left rural students ill-prepared for local employment and community engagement.

Participants advocated for resource-based learning, institutional decentralization, vocational subject integration, and hands-on approaches that link schools with their surrounding environments. These insights suggest a clear pathway toward an educational paradigm that is locally grounded, practically oriented, and development-focused. Such a transformation would not only enhance learning outcomes but also position education as a central force for sustainable, community-led development.

On the basis of the responses of my informants I developed a framework for the inclusion of the resources to address their core concerns in curriculum mentioned (see Table 1) as follows:

Table 1. *Framework for the Inclusion of Resources in School Education*

Geo-pocket Areas	**Major Potentialities**	**Core Learning Areas**	**Core Subjects**
Arable Plain	Farming Arts and crafts	-Farming -Horticulture -Fishery -Cattle-breeding -Forestry -Study of crops and soil -Nursery Management -Medicinal and non timber forest product -Mushroom and fruits cultivation - Arts and crafts	-Agriculture Science -OBT Education -Agronomy
River-side Area	Farming Arts and crafts	-Farming -Horticulture -Fishery -Cattle-breeding -Commercial vegetable production -Mushroom and fruits cultivation -Medicinal and non timber forest product -Study of crops and soil - Arts and crafts	-Agriculture Science -OBT Education -Agronomy
Tourist Area	Hotel Management Tourist Guide	-English for Specific Purpose, -Hospitality management, -Tourist Guide, -Arts and Crafts -Ornamental	-English -Tourism -Hotel Management -Home Science -Arts and Crafts -Music and Dance -Horticulture

horticulture

(Developed by the Researcher, *2024*)

The framework mentioned above includes major resource potentialities in general in three of the geo pocket areas of my study location. These major resource potentialities include the principal resources on which the local population can have professional development and there can be an association and application of IK, I Tech and local skills in the process of teaching learning through classroom instructions. The core learning areas in this framework specify the learning outcomes in particular fields based on the major resource potentialities. These areas also specify the professional development and outcomes after the implementation of them in teaching learning. Based on the core learning areas, I have mentioned the core subjects that can be included in school education. These subjects cover the core subject matters in specified geo pocket areas mentioned in my study locations.

CONCLUSION

This study reaffirms that education becomes truly transformative when it equips learners with practical skills grounded in their lived realities and local environments. Drawing from both literature and field observations, it is evident that experiential and activity-based learning especially when linked to locally available resources holds immense potential for contextual skill development. In Nepal's rural settings, where diverse natural and cultural resources abound, the integration of such assets into formal education is not only feasible but essential.

The research findings point to a significant disconnect between the educational content delivered in schools and the wealth of indigenous knowledge (IK), indigenous technologies (I-Tech), and community-based skills available in the study area. Despite the presence of fertile agricultural land, ponds, artisanal practices, and other productive local capacities, these resources remain neglected within the current educational framework. This underutilization stems largely from systemic educational shortcomings, including a rigid curriculum, lack of pedagogical innovation, insufficient teacher training, and weak institutional incentives for resource-based learning.

Participants frequently expressed frustration over the inability of formal schooling to support or enhance traditional livelihoods. The failure to integrate local resources into school practices has led many to seek vocational skills beyond the community sometimes across national borders—highlighting a serious gap between education and employability. Even in cases where physical resources were available in schools, they were often rented out or left idle rather than being incorporated into student learning experiences.

Additionally, there exists a notable lack of meaningful collaboration between schools and the local community. Community participation in school management and curriculum planning is minimal and often constrained by politicized structures. This limited engagement undermines the creation of a more relevant, community-rooted education system that could otherwise foster ownership, agency, and local development.
In conclusion, bridging the gap between locally available resources and educational practice is imperative. The integration of IK, I-Tech, and local skills through participatory and context-sensitive pedagogies can enhance both educational relevance and livelihood outcomes. For such transformation to occur, curriculum reform, institutional innovation, teacher capacity building, and active community involvement are essential. Embedding local realities into school education not only fosters meaningful learning but also contributes to the broader goal of sustainable, self-reliant development in Nepal's rural regions.

IMPLICATION OF THE STUDY

This study highlights the need to integrate local resources such as Indigenous Knowledge (IK), Indigenous Technologies (I-Tech), and community skills into formal education to enhance relevance, participation, and sustainability.

At the knowledge level, education should prioritize experiential, context-based learning that connects students with their environment. Natural resources alone are insufficient without skilled and ethical human capital to manage them effectively. At the practice level, the findings challenge Nepal's uniform curriculum and advocate for locally adapted, participatory approaches. Involving communities in identifying and applying local knowledge makes education more meaningful and supports vocational learning linked to real-life needs. At the policy level, the study recommends documenting local resources to inform curriculum design. Local governments should institutionalize IK and vocational education through curriculum reform, teacher training, and project-based assessments. Policies must ensure practical implementation with accountability and monitoring in Nepal.

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