



## Philosophical–Psychological Approach to Understand the Indigenous Perspectives on the Proposed Siang Upper Multipurpose Project in Arunachal Pradesh

**Miti Taying**, *Ph.D Scholar, Department of National Security Studies, Rajiv Gandhi University, Rono Hills, Doimukh - 791112, Arunachal Pradesh, India. Email ID: [mititayingforjc@mail.com](mailto:mititayingforjc@mail.com), Orcid ID: <https://orcid.org/0009-0005-5964-3486>*

**Abstract:** Large-scale development projects in ecologically sensitive and culturally significant regions often create tensions between national development goals and indigenous rights. The proposed Siang Upper Multipurpose Project (SUMP) on the Siang River in Arunachal Pradesh has generated intense debates among policymakers, scholars and local communities. While the project is expected to produce approximately 11,000 MW of electricity and support flood control and water security, indigenous communities—especially the Adi and other tribes—have raised strong objections due to concerns regarding displacement, ecological damage and cultural loss. Reports suggest that the reservoir could submerge several villages and affect the livelihoods of thousands of people living in the Siang basin. Beyond environmental and economic considerations, the opposition to the mega-dam reflects deeper philosophical and psychological dimensions related to indigenous identity, cultural values and human–nature relationships. Indigenous societies often perceive rivers not merely as natural resources but as sacred entities embedded within cosmological beliefs and social systems. For example, many Adi people refer to the Siang River as “Aane Siang,” meaning “Mother River,” symbolizing a spiritual and ecological connection with their environment. This research article employs a philosophical-psychological framework to examine the perceptions of indigenous communities regarding the Siang dam project. Drawing on environmental philosophy, ecological psychology

and indigenous knowledge systems, the study explores how cultural identity, collective memory and existential attachment to land shape local resistance. The research further analyzes the psychological impacts of perceived threats to land, culture and livelihoods. By integrating theoretical perspectives and qualitative insights, the article argues that indigenous resistance is not merely political activism but a manifestation of deeper philosophical worldviews and psychological responses to existential insecurity. The findings highlight the importance of culturally sensitive policy frameworks that recognize indigenous epistemologies and psychological well-being when planning large-scale infrastructure projects in borderland regions.

**Keywords:** *Indigenous Worldview, Siang River, Environmental Philosophy, Psychological Security, Mega-Dam Conflict, Arunachal Pradesh*

## 1. Introduction

Hydropower development has been promoted globally as a source of renewable energy and economic growth. Governments often consider large dams essential for electricity generation, flood control and strategic water management. In India's northeastern region, particularly in Arunachal Pradesh, the abundance of Himalayan rivers has led to numerous hydropower proposals. Among them, the proposed Siang Upper Multipurpose Project (SUMP) stands out as one of the largest hydropower projects envisioned in India. Arunachal Pradesh's Siang River known as the Yarlung Tsangpo in upstream in Tibet and later forming the Brahmaputra in Assam, is not only a major hydrological system but also a cultural and ecological lifeline for the indigenous communities living along its banks. These communities include the Adi and other tribal groups who have historically depended on the river for agriculture, fishing, transportation and spiritual practices. The proposed dam has triggered widespread resistance among indigenous communities in the Siang basin. Civil society groups, farmers' associations and student unions have protested survey activities associated with the project. Local communities argue that the dam could submerge villages, destroy forests and threaten their ancestral lands and cultural heritage. From a development perspective, policymakers emphasize the potential benefits of the project. These include electricity generation, regional infrastructure development and strategic water management in response to upstream dam construction in China. However, the debate surrounding the project is not limited to economics or environmental concerns. At its core, the conflict reflects a clash between two fundamentally different ways of

understanding nature and development. Modern developmental paradigms often view rivers as resources to be harnessed for economic gain. In contrast, many indigenous communities perceive rivers as living entities with spiritual and cultural significance. Therefore, understanding indigenous resistance requires more than political or economic analysis. It demands a deeper exploration of the philosophical and psychological foundations of indigenous worldviews. This research adopts a philosophical–psychological approach to examine how indigenous communities perceive the Siang dam project. It focuses on how cultural beliefs, emotional attachments to land and psychological perceptions of risk influence local responses to development initiatives. By integrating environmental philosophy and psychological theory, this study aims to provide a more holistic understanding of the indigenous opposition to mega-dam project in the Siang River.

## **2. Theoretical Framework**

### ***2.1 Environmental Philosophy and Indigenous Cosmology***

Environmental philosophy examines the ethical relationship between humans and nature. Thinkers such as Arne Naess (deep ecology) and Aldo Leopold (land ethic) argue that nature possesses intrinsic value beyond economic utility. Indigenous worldviews often align with these perspectives, emphasizing respect for rivers, forests and mountains as living entities. In the Siang valley, the river is embedded in ritual practices, myths and social identity. The dam proposal is therefore perceived as an ethical violation of nature rather than merely a development project. Indigenous communities often embrace a holistic worldview in which humans, rivers, forests and animals form an interconnected system. In many indigenous cultures, nature is not considered an exploitable resource but a living entity deserving respect, worship and protection. In the context of Arunachal Pradesh, the Siang River is deeply embedded in indigenous cosmology. For the Adi people, the river represents both a life-giving force and a spiritual symbol. Such perspectives align with environmental philosophies such as deep ecology, which advocates for recognizing the intrinsic value of nature. The philosophical conflict between modern development and indigenous cosmology forms the foundation of resistance to mega-dam projects.

### ***2.2 Eco-Psychology***

Eco-psychology examines how human psychological well-being is linked to ecological environments. Scholars argue that people derive emotional stability and identity from their

natural surroundings. When ecosystems are disrupted, communities may experience ecological grief, anxiety and loss of cultural meaning. For indigenous communities along the Siang River, displacement from ancestral land could produce deep psychological trauma due to the disruption of place-based identity.

### ***2.3 Place Attachment Theory***

Place attachment refers to the emotional bond between individuals and specific geographic locations. It emphasizes lived experiences and subjective meanings attached to places. According to this perspective, landscapes are not neutral spaces but repositories of memory, culture and identity. The Siang valley is not simply a geographic location, but a cultural landscape shaped by generations of indigenous traditions, agricultural practices and spiritual beliefs. Psychologists argue that strong place attachment can influence attitudes toward environmental change. For indigenous communities, land is not merely property but a repository of ancestral memories, traditions and social identity. The potential loss of land due to dam construction can therefore create profound psychological distress.

### ***2.4 Environmental Identity Theory***

Environmental identity theory suggests that individuals define themselves partly through their relationship with the natural environment. In indigenous societies, identity is often closely tied to the landscape. Rivers, mountains and forests become symbols of cultural belonging. Any threat to these natural features can therefore trigger a strong psychological reaction.

### ***2.5 Indigenous Knowledge Systems***

Indigenous knowledge systems emphasize harmony with nature and sustainable resource use. Traditional ecological knowledge developed over centuries provides communities with adaptive strategies for agriculture, forestry and water management. The construction of large dams often disrupts these systems by altering natural river flows and destroying traditional farming practices.

### ***2.6 Collective memory of consequences of construction of dams in neighboring countries***

Collective memory refers to shared collections of historical events that shape the thoughts of the people. Indigenous communities often talk about the narratives of displacement of refugees that took place in other countries due to the constructions of dams. The example of refugees such as Chakma and Hajong staying in Arunachal Pradesh who got displaced due to construction of the Kaptai dam on the Karnaphuli river in Bangladesh in 1960's is a strong

lesson for them to fear the constructions of any dam over Siang River. Many such examples influence contemporary responses to new infrastructure projects. The fear of losing land and cultural heritage can evoke psychological trauma and resistance.

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## **3. Background of the anti-dam movement**

The movement opposing the construction of a dam on the Siang River began in the 1980s and even today a majority of the people in the region continues to oppose the project. Initially, the protest movement emerged under the banner of Siang Bachao Andolan, which later evolved into the Siang Bachao Federation. Throughout the movement, the local population organized various protests, demonstrations and strikes to express their opposition to the proposed mega dam. The proposed dam project on the Siang River was initially planned to be executed by the Brahmaputra Flood Control Company (BFCC), which was later renamed as the Brahmaputra Board Company(BBC). Subsequently, the project was transferred to the National Hydroelectric Power Corporation (NHPC) and later assigned to the Jay Pee (JP). At present, the project has again been taken up by the National Hydroelectric Power Corporation under the name Siang Upper Multipurpose Project (SUMP), which proposes the construction of a mega dam on the Siang River.

From the beginning of the movement in the 1980s, the local indigenous communities strongly opposed the project and refused to compromise on their stand. Their resistance has remained consistent to this day. During the early phase of the protest in the 1980s, people mobilized under the banner of Siang Bachao Andolan. Later, in 2002, the resistance movement continued under the platform of the Siang People's Forum. Between 2003 and 2013, several committees and forums were formed by the affected communities to oppose dam construction on the Siang River. These included the Lower Siang Project Affected People Action Committee, Dam Affected People's Forum, Dam Affected People's Forum of Siyom–Sirit Banggo, Mebo

Area Bachao Committee and the Siang Bachao Federation (former Siang Bachao Andolan). From 2013 onward, the movement against the mega dam has largely been carried forward under the banner of the Siang Indigenous Farmers Forum, which currently leads the resistance.

In 2017, the Government of India's policy think tank, the NITI Aayog, proposed the implementation of the Siang Upper Multipurpose Project, a massive hydroelectric project with an estimated capacity of about 11,000 MW in Upper Siang District of Arunachal Pradesh. Subsequently, in April 2022, the central government directed the National Hydroelectric Power Corporation to conduct a pre-feasibility survey to assess the technical and environmental feasibility of the proposed project.

According to many indigenous residents of the region, certain political leaders from Arunachal Pradesh have been attempting to persuade local communities to accept the construction of the dam on the Siang River. The local people claim that some leaders have been presenting narratives in the media suggesting that a majority of the population supports the project. However, community members argue that, in reality, most local inhabitants remain opposed to the dam proposal.

On 19 October 2024, a public consultative meeting regarding the Siang Upper Multipurpose Project was organized at Yingkiong, Upper Siang District by the All-Upper Siang District Students' Union. The meeting was attended by Member of Parliament Shri Tapir Gao and HMLA 34<sup>th</sup> Tuting–Yingkiong Shri Alo Libang , HMLA 37<sup>th</sup> Pasighat West Shri Ninnong Ering, HMLA 35<sup>th</sup> Pangin-Boleng Shri Ojing Tasing, HMLA 40<sup>th</sup> Mariyang-Geku Shri Oni Panyang, the then Chief Advisor Anong Jongkey, the then SIFF President Shri Gegong Jijong, the then ABK President Shri Tadum Libang , the then AdiSu president Shri Jirbo Jamoh and many head gaon burah, head gaon buris and public from areas who can get affected if Siang dam is built. During the meeting political leaders reportedly informed the local population that the Government of India was determined to proceed with the mega dam project on the Siang River and might deploy Central Armed Police Forces to ensure that the pre-feasibility survey could be carried out. In the meeting most of the indigenous public were against the dam project over Siang River.

### **3.1 Research Objectives**

1. To examine the philosophical foundations of indigenous opposition to the Siang mega dam project.

2. To examine the psychological perceptions of risk, fear and identity among indigenous communities affected by the proposed Siang dam project.
3. To evaluate how philosophical and psychological perspectives shape collective resistance to large Siang dam project.

### **3.2 Research Questions**

1. How do indigenous philosophical worldviews influence local perceptions of the proposed Siang dam?
2. What kinds of psychological fears and insecurities are experienced by indigenous people living in areas that may be affected by the proposed dam project on the Siang River?
3. How do philosophical beliefs and psychological responses shape community resistance to the project?

### **3.3 Research Methodology**

This study adopts a qualitative research methodology grounded in interpretive social science.

### **3.4 Research Design**

The research uses a philosophical–psychological analytical framework to examine indigenous perspectives on the Siang dam project.

### **3.5 Data Sources**

1. Secondary literature on indigenous environmental philosophy.
2. Academic studies on dam development and displacement.
3. Media reports and policy documents related to the Siang dam project.

### **3.6 Analytical Method**

The study employs thematic analysis to interpret patterns in indigenous perspectives regarding land, identity and environmental change.

### **3.7 Ethical Considerations**

The research respects indigenous rights and acknowledges the importance of culturally sensitive interpretations of local beliefs.

## 4. Discussion

### 4.1 *Philosophical Foundations of Indigenous Resistance*

Indigenous resistance to the Siang dam is rooted in philosophical understandings of nature. For many communities, rivers are sacred beings rather than economic resources. This worldview contrasts sharply with modern industrial development models that treat rivers as sources of energy production. For many indigenous groups in Arunachal Pradesh, rivers are not merely geographical features, but sacred entities intertwined with social and spiritual life. The Siang River plays a central role in agriculture, cultural rituals and oral traditions. Local communities often describe the river as a maternal figure that sustains life. Such symbolic interpretations demonstrate a philosophical worldview rooted in ecological harmony rather than resource extraction. From this perspective, dam construction is seen as a disruption of the natural balance between humans and the environment.

Within the Adi cosmology, the Siang River is considered the lifeline of the community. Rituals, myths and festivals often celebrate the river as a divine presence that sustains life and cultural continuity. Consequently, transforming the river through large-scale engineering is perceived as a violation of sacred ecological relationships. Environmental philosophers argue that modern development often reflects anthropocentric values that prioritize human economic interests over ecological integrity. Indigenous perspectives, by contrast, emphasize biocentric ethics that respect the intrinsic value of nature.

The anti-dam movement in the Siang valley therefore represents a clash between two competing philosophical paradigms: the technocratic model of development and the relational worldview of indigenous communities.

### 4.2 *Psychological Perceptions of Risk and Insecurity*

The second objective of this research is to examine psychological perceptions of risk among indigenous communities.

The proposed dam project has generated widespread anxiety among residents of the Siang valley. Concerns include displacement, loss of farmland and ecological degradation. Studies on displacement indicate that the psychological effects of forced relocation can include depression, loss of identity and community fragmentation. These fears are particularly strong in indigenous societies where land represents cultural continuity. The possibility that villages could be submerged by the reservoir has intensified these anxieties. Communities fear that losing

ancestral lands would sever their connection with past generations. From a psychological perspective, resistance to the dam is also shaped by strong emotional connections to land and landscape. Indigenous communities have lived in the Siang valley for generations and their identity is closely tied to the physical environment. Place attachment theory explains how individuals develop emotional bonds with specific locations through long-term interaction, cultural practices, and personal memories. Displacement from ancestral land can therefore lead to psychological distress, loss of identity and social fragmentation. In the case of the Siang dam project, the possibility of submerging villages and agricultural fields threatens not only economic livelihoods but also the psychological stability of communities.

#### ***4.3 Identity, Resistance and Collective Action***

The third objective of this research is to evaluate how philosophical and psychological factors influence resistance movements.

Indigenous resistance to the Siang dam project is not solely driven by environmental concerns. It also reflects deeper struggles over cultural identity and autonomy. Local organizations and community groups have mobilized protests against survey activities and dam construction plans. These movements highlight the importance of community solidarity and collective identity in shaping resistance. Resistance therefore emerges as a psychological response to perceived threats against cultural survival.

Beyond philosophical and psychological issues, local communities also raise concerns about ecological impacts. The Siang valley lies in a seismically sensitive Himalayan region with rich biodiversity. Environmental activists warn that large dams could disrupt fragile ecosystems and increase disaster risks such as landslides or earthquakes. The anti-dam movement can also be interpreted as a struggle for environmental justice. Indigenous communities argue that development projects often impose environmental costs on marginalized populations while benefiting distant urban centers. Understanding these dynamics requires integrating ethical, psychological and political perspectives.

#### 4.4 Images of indigenous villagers opposing the construction of dam over Siang River



*A public consultative meeting held at Yingkiong on 19/10/2024*



*Old aged women protesting against construction of Dam over Siang river.*





## 5. Conclusion

The proposed Siang Upper Multipurpose Project represents one of the most significant development initiatives in India's northeastern region. While the project promises economic and strategic benefits, it has also generated intense opposition from indigenous communities living in the Siang basin. This research demonstrates that understanding this opposition requires more than economic or environmental analysis. A philosophical–psychological approach reveals deeper layers of meaning behind indigenous resistance. Indigenous communities perceive the Siang River not merely as a natural resource but as a sacred and life-sustaining entity embedded within their cultural worldview. The potential loss of ancestral lands and ecological systems threatens both cultural identity and psychological well-being. Therefore, development policies in indigenous regions must recognize the importance of cultural values, environmental ethics and psychological security. Future policy frameworks should emphasize participatory decision-making, culturally sensitive environmental assessments and respect for indigenous rights. Only by integrating indigenous knowledge and philosophical perspectives into development planning can sustainable and socially just solutions be achieved.

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