



Indian Institute of Public
Administration (IIPA)

SOCIAL IMPACT ASSESSMENT STUDY



FOR
SUBANSIRI
UPPER HE
PROJECT
(1605 MW)

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Executive Summary

INTRODUCTION

Project and Public Purpose

Government of Arunachal Pradesh has signed an MOU with NHPC Limited, a Government of India enterprise for constructing the **Subansiri Upper Hydro Electric Project (SUHEP)**, a run-of-the-river scheme with an installed capacity of **1605 MW**. The project is strategically located on the Subansiri River in Arunachal Pradesh, forming a critical component of the broader hydroelectric development strategy for the Brahmaputra River basin. Positioned upstream of the ongoing Subansiri Lower Project, SUHEP is envisioned as part of a cascade of hydropower projects designed to harness the immense potential of the Subansiri basin while ensuring regional energy security.

The **Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (RFCTLARR Act, 2013)** mandates that when the Government acquires land for its own use, control, or for Public Sector Undertakings

(PSUs), such acquisition must serve a defined **public purpose**. Electricity generation has been explicitly recognized as a public purpose under the Act. Given that NHPC Ltd. is a wholly owned Government of India undertaking, established with the mandate to plan, promote, and develop hydroelectric power in an integrated and efficient manner across the country, the acquisition of land for SUHEP directly falls under this category.

Thus, the proposed acquisition of land and subsequent project development is justified as it serves a **nationally significant public purpose**—providing clean and renewable energy, strengthening grid stability, reducing dependence on fossil fuels, and contributing to the overall socio-economic development of Arunachal Pradesh and the northeastern region of India.

Location

The **Subansiri Upper Hydro Electric Project (SUHEP)** is located in the Upper Subansiri district of **Arunachal Pradesh**, a strategically important region of India's northeastern frontier. The project site lies along the **Subansiri River**, the largest tributary of the Brahmaputra, which originates in Tibet and flows through Arunachal Pradesh before joining the Brahmaputra in Assam.

The project envisages the construction of a **237-meter-high concrete gravity dam** across the Subansiri River near **Menga village**, situated approximately 25 kilometers upstream of Daporijo, the district headquarters. The dam will create a reservoir to regulate river flow and facilitate power generation. From the dam, water will be diverted through **headrace tunnels** to an **underground powerhouse** proposed on the right bank of the river. The powerhouse is designed to house **eight generating units of 201.25 MW each**, giving a total installed capacity of 1605 MW.

The project area is characterized by rugged mountainous terrain, dense forests, and scattered tribal settlements, primarily inhabited by the **Tagin** community, along with other indigenous groups. Its location in the Subansiri basin makes it a vital component of the **Subansiri River's cascade development plan, which aims to harness the region's hydro potential** in a phased manner. The SUHEP will operate upstream of the Subansiri Lower Project and contribute significantly to both local and national power requirements.

Size and Attributes of Land Acquisition

The Subansiri Upper Hydro Electric Project (SUHEP) requires a substantial land base to accommodate its dam, reservoir submergence, project infrastructure, quarries, muck disposal sites, and ancillary facilities. Based on the detailed assessment, the total area likely to be affected is estimated at **2,733 hectares**, spread across multiple circles

including Dumpori, Daporijo, Jaring, Taliha, and Siyum, along both the right and left banks of the Subansiri River.

A significant portion of this land — **2,417.47 hectares** — will be impacted due to submergence at elevation 472 meters. This includes **932.66 hectares on the right bank**, **1,047.30 hectares on the left bank**, and **437.51 hectares of water bodies**, all lying upstream of the dam site at Menga.

Beyond submergence, the project requires **174.98 hectares** for core infrastructure such as dam and powerhouse sites, spillways, and other structural works. Additionally, **49.05 hectares** have been earmarked for quarrying and borrow areas, including the Mara River School Deposit (10.83 ha), Menga Rock Quarry (11.67 ha), Sippi River and downstream shoal deposits (6.85 ha combined), Daporijo and Subansiri shoal deposits (12.69 ha combined), and Dumporijo shoal deposits (6.85 ha). These quarry sites are strategically located to provide construction material while minimizing transport and ecological disruption.

The project also requires **35 hectares for muck disposal**, identified on riverbanks near Menga and the Subansiri, and **20 hectares for storage and logistical facilities**, including a magazine area/store (4 ha, 11.2 km from Daporijo) and a project store (16 ha, 16 km from Daporijo). For contractor facilities and colonies, about **1.5 hectares** have been allocated on the left bank opposite Menga village.

Overall, the acquisition includes a mix of **private agricultural land, community land, government-managed land and super structure, and departmental holdings**, with distribution varying between right and left banks. The land-use transition will alter not just agricultural and forest-based livelihoods but also physical landscapes, cultural spaces, and ecological habitats.

Alternatives Considered

During the planning stage of the Subansiri Upper Hydro Electric Project (SUHEP), multiple alternatives for dam alignment and design were carefully studied to minimize environmental, cultural, and social impacts while ensuring technical feasibility and generation efficiency. Given the project's location in Upper Subansiri district, an area marked by high seismicity, fragile topography, and sensitive indigenous habitats, the choice of dam site and associated structures required a balanced approach.

The initial alignment options identified by the Central Water Commission (CWC) considered dam sites closer to culturally and environmentally significant zones, including stretches near traditional community grounds and ecologically fragile submergence areas. However, these alignments raised concerns of large-scale displacement, submergence of fertile riverbank land, and risks to critical habitats. To address these, the project authority assessed **four major alternatives**. Two options were rejected outright due to technical limitations—steep slopes, poor geology, and infeasibility of constructing

stable underground works in those locations. The third option, although technically feasible, was dropped because of its potential to disrupt historically important community areas and sacred lands used by the Tagin and other indigenous groups.

The final alignment selected lies **downstream of the confluence of the Runchu Nallah**, where geological investigations confirmed suitability for both dam foundation stability and underground powerhouse construction. This alignment minimizes direct interference with community lands of historical importance and reduces submergence in densely inhabited pockets. Moreover, to limit the adverse impacts, the **Full Reservoir Level (FRL)** was revised downward during design optimization, reducing the scale of submergence and safeguarding critical village resources.

Project components such as the **Power House, Surge Shaft, and Head Race Tunnels** have been designed underground on the right bank, leaving only essential outlets like adit portals and the Tail Race Tunnel (TRT) visible above ground. On the left bank, options for underground siting were explored but found technically unviable due to weak strata and slope instability. To minimize disturbance during access, approach roads have been substituted with **access tunnels** where feasible, reducing the long-term impacts on day-to-day community movement.

The final chosen alignment represents a balance between technical feasibility and impact minimization. While land acquisition of **2,733 hectares** (as detailed in Table 1.2) remains substantial, the adopted alignment reduces risks to culturally sensitive zones, limits the spread of project facilities, and ensures the project remains aligned with both development and sustainability objectives.

Social Impacts

I. Direct Impact on Land and Assets

Affected Landowners

The Subansiri Upper Hydro Electric Project requires the acquisition of approximately **2,733 hectares** of land across multiple circles and revenue blocks in the Upper Subansiri district. Of this, a significant portion comprises **private land**, affecting a large number of landowning households. Based on survey estimates, more than **1785 landowner families** will experience loss of land/resources¹. While many are only losing agricultural land and not their primary residences, the scale of impact varies. For some families, particularly those with smallholdings, acquisition will result in marginalization or even landlessness.

¹ Since eight villages' households do not participate in SIA, the exact number of households cannot be confirmed. This issue will be resolved after the Property Assessment survey is carried out by the District Authorities.

Out of the total impacted families, several families, especially in the different circles, **are expected to face severe impacts**², including the complete loss of their cultivable holdings. Following land acquisition, several families will transition to the category of marginal farmers, while a smaller number may become landless altogether.

Displaced Families

(i) Landowners (Fully Affected Families)

While the project is designed to minimize displacement, certain households in the submergence and project infrastructure zones will lose both land and residential structures. Preliminary surveys indicate that a limited number of landowner households in villages along the Subansiri riverbanks and Menga area fall into this category and will require full resettlement under the R&R plan.

(ii) Non-titleholders

A considerable population of non-titleholder families (informal settlers) also reside in the affected zones, particularly near quarries, muck disposal sites, and shoal deposits. These households live under informal arrangements or have constructed houses on private/government land without formal rights. Many of them have been living in the area for more than a decade and have established livelihoods through daily wage labour, petty businesses, carpentry, or transport work. While their direct agricultural dependency is limited, displacement will disrupt their housing and community networks.

Besides residential structures, ancillary assets such as cowsheds, goat sheds pigsties, and poultry sheds will also be impacted, requiring compensation and livelihood support during the transition period.

Land Use on Proposed Land

The affected land in the Subansiri project area reflects a mosaic of agricultural crops, forests, river shoals, and barren plots. Survey reports suggest that a large share of private holdings is devoted to traditional farming of crops such as rice, maize, ginger, cardamom, and seasonal vegetables, although satellite imagery confirms a steady decline in cultivated acreage over the past decade.

Forest-based resources, including bamboo, fodder grasses, and multipurpose trees, remain crucial to community livelihoods. Important tree species in the area include Utis,

² Since eight villages' households do not participate in SIA, the exact number of households cannot be confirmed. Further, land records are not available in Arunachal Pradesh. The precise number of fully and partially affected families cannot be determined. Both of these issues will be resolved after the Property Assessment survey is carried out by the District Authorities.

Katus, Panisaz, and Mulberry (Kimbu). Orchards of banana, orange, and jackfruit are also present, albeit in fragmented patches.

Additionally, the project requires land from quarries and shoal deposits (e.g., Menga Rock Quarry, Sippi River Shoal, Daporijo Shoal, Dumporijo deposits), which are critical sources of construction material. Their acquisition will directly impact local wage earners and contractors who depend on quarrying and transportation for income.

II. Impact on Common Property Resources (CPRs)

The Subansiri Upper HE Project requires diversion of substantial areas of forest and community land, including community land, **forest nurseries, and departmental facilities**, which are currently used by local communities for livelihood, subsistence, and social activities. The diversion of these resources has direct implications on traditional access to forest produce, firewood, fodder, and community-based grazing lands. The precise estimates of common property resources can only be done after the Property Assessment survey is carried out by the District Authorities.

Firewood dependency is also pronounced: surveys indicate that over **15.9% of households in the project-affected villages rely on firewood for cooking**. At the same time, in interior regions like Siyum and Taliha, this proportion is considerably higher. With the diversion of forest patches, families may face increased difficulty in securing daily energy needs, adding economic pressure and further dependence on already stressed forest resources.

Riverine areas, which are critical provisioning sources of fish and edible aquatic plants, will also be impacted by submergence and altered flow regimes. This will reduce the availability of nutrient-rich food and force communities to rely on distant or more expensive substitutes. Moreover, the ongoing process of **recognizing individual and community forest rights under the Forest Rights Act means that many households and tribal groups face uncertainty in asserting claims over resources that are** now earmarked for acquisition. The degree of impact will depend on how effectively residual khasmal land and forest rights are preserved, as well as on the compensatory and resettlement measures designed under the SIMP.

Overall, the diversion of CPRs poses **risks to livestock management, fuelwood access, nutrition security, and cultural practices tied to communal land use**. Unless mitigated with robust rehabilitation strategies—such as relocating the veterinary hospital, securing alternative grazing reserves, and ensuring community rights—the loss of these resources could create long-term livelihood vulnerabilities for the affected population.

III. Impact on Vulnerable Households

Large-scale hydropower projects such as the **Subansiri Upper HE Project** inevitably affect certain categories of households more severely, accentuating pre-existing vulnerabilities. Although these conditions may not be caused directly by the project, the process of **land acquisition, resettlement, and disruption of livelihoods** can heighten risks of poverty, social exclusion, and reduced resilience. Within the Project Affected Families (PAFs) identified during the Social Impact Assessment, the following groups are considered particularly vulnerable:

1. Landless and Marginal Landowners

A significant number of affected households will face drastic reductions in their landholdings due to project acquisition. Based on survey data, **nine landowner families will become landless** while **--- families will be reduced to marginal landowners**, losing their primary source of sustenance and security. These households face heightened risks of economic instability and food insecurity, necessitating targeted livelihood restoration measures.

2. Women-Headed Households

Women-headed families often face **structural disadvantages in income generation, asset ownership, and access to social safety nets**. The SIA survey identified **16.8% of the total households to be women-headed landowner households** among those affected. Their vulnerabilities are compounded by caregiving responsibilities and limited bargaining power in resettlement negotiations. Ensuring their access to compensation, skill training, and social protection schemes will be critical.

3. Families with Disabled or Chronically Ill Members

Households with members suffering from **physical or mental disabilities, or chronic illnesses** are disproportionately impacted by displacement. For SUHEP, **7.06% of families fall under this category**, of which there are **67 males and 71 females being affected by a disability requiring ongoing medical care and recurring health support**. The loss of proximity to health services, disruption of care networks, and the stress of relocation can worsen their condition unless special support mechanisms are put in place.

4. Elderly Population with High Support Needs

Elderly individuals are highly dependent on their immediate environment and community networks for day-to-day support. The survey identified **0.90% of the population above the age of 70 years** within the PAFs. Their **physical immobility, dependency on younger family members, and emotional attachment to ancestral lands** make them especially vulnerable during resettlement and rehabilitation. Customised assistance, such as healthcare linkages, assisted living provisions, and priority in housing allocation, is necessary.

IV. Impact on Social and Cultural Life of the Tribal Community

The **Subansiri Upper Hydro Electric Project** is located in a region inhabited predominantly by the Tagin and some other tribal communities such as Galo and other indigenous groups, whose social and cultural fabric is deeply intertwined with their ancestral land, rivers, and forests. The implementation of the project will inevitably reshape aspects of their cultural and social life.

Labour Influx and Cultural Pressures

The influx of a large migrant workforce, contractors, and service providers into the remote Upper Subansiri district carries the potential to disrupt existing social cohesion. Cultural and religious differences between incoming workers and local populations may generate friction, especially in sensitive tribal villages. Without proper regulation, risks of petty conflicts, criminal activity, and social vices (alcoholism, substance abuse, gambling) could increase. Similarly, the influx could introduce communicable diseases, straining the limited healthcare infrastructure in the area.

Demographic and Settlement Shifts

The long-term apprehension within local communities is that many incoming migrants may not leave even after the construction phase, choosing instead to settle permanently in nearby towns and villages. This concern is grounded in historical precedents in Arunachal Pradesh where migrant labourers, after decades of stay, have assimilated into local economies and sought residence rights. In SUHEP's context, many of the existing non-titleholder families in the affected zone have already been residing for over a decade—some even two decades—establishing permanent homes, shops, and agricultural activities. Their possession of documents like voter IDs, Aadhaar cards, and ration cards adds to local fears of demographic shifts that may dilute tribal identity and ownership.

Cultural Erosion and Ritual Spaces

The Subansiri River and surrounding landscapes hold not only economic but also spiritual and cultural value for the tribal communities. Disruption of riverbanks, sacred groves, or communal spaces may impact traditional practices, rituals, and festivals linked to nature.

For the Tagin community, the Subansiri River and its adjoining landscapes are more than geographical features—they are deeply woven into the spiritual fabric, oral traditions, and ritual practices of the people. The river is seen as a life-giving force, and its banks often serve as spaces for offerings to ancestral and natural spirits. Rituals linked to agriculture, healing, and seasonal changes often require proximity to sacred water bodies, groves, or stone altars that are traditionally maintained by the Tagin clans.

The construction and submergence caused by the Subansiri Upper Hydro Electric Project threaten to erode these cultural connections by restricting access to riverbanks, displacing sacred groves, and fragmenting communal gathering grounds.

The loss of ritual spaces not only affects the symbolic relationship between the Tagins and their environment but also weakens social cohesion, as communal ceremonies are essential for reaffirming identity, kinship, and shared cultural values. Without these spaces, younger generations may face cultural alienation, accelerating the erosion of indigenous heritage. Moreover, the arrival of outside populations as part of labour influx and project-related migration could further marginalize Tagin customs in favor of dominant external cultural practices, leading to identity dilution over time.

Social Change and Adaptation

While there is apprehension about the erosion of culture, project-linked development, such as improved roads, markets, and exposure to external workers, could also trigger lifestyle changes. Younger generations may adopt new skills and explore new employment opportunities, potentially reducing their dependence on subsistence farming. However, the transitional phase will be socially tense unless there are dedicated programs for cultural preservation, inter-community dialogue, and protocols for regulating labour influx and settlement.

V. Impact on Environment

The Subansiri Upper Hydroelectric Project (SUHEP) is expected to exert a wide range of environmental impacts, both immediate and long-term, which have been repeatedly raised by the affected communities. The construction phase will bring large-scale excavation, blasting, and tunneling in a geologically fragile and ecologically sensitive region. This is likely to cause loss of scenic beauty and landscape degradation, including deforestation, riverbank destabilization, and slope failures. Alteration of the natural flow of the Subansiri River due to damming and diversion is another serious concern, as it could affect aquatic ecosystems, fish migration, and downstream river health. Dust and noise from quarrying, muck disposal, and vehicular movement will degrade air quality and public health, while vibration from blasting may damage nearby houses and traditional structures.

In addition, the submergence of fertile farmland and community forest areas will directly affect livelihoods, including agriculture, fishing, and collection of forest produce. Improper disposal of muck and untreated effluents could contaminate water sources used for drinking and irrigation, increasing the risk of waterborne diseases. Communities have also expressed fears about the long-term sustainability of rim treatment around the reservoir, as improper management may trigger landslides and soil erosion. Further, the influx of migrant workers is anticipated to put pressure on local resources, generate additional waste, and heighten risks of communicable diseases and social tensions. Together, these issues highlight the need for a robust environmental management plan that integrates engineering, ecological safeguards, and continuous community engagement.

Mitigation Measures

The Social Impact Management Plan (SIMP) for the Subansiri Upper Hydroelectric Project recommends a series of measures to mitigate and minimize risks to local communities and to provide comprehensive strategies for mitigating unavoidable impacts throughout the project cycle. The plan outlines a robust grievance redressal mechanism, monitoring and evaluation arrangements, and institutional strengthening to ensure effective implementation. For the pre-construction phase, mitigation measures include a **Community Engagement Plan**, a **Resettlement & Rehabilitation (R&R) Plan**, and a **Plan for Vulnerable Households**. During the construction phase, a **Labour Influx Management Plan** and a **Muck Disposal Plan** are emphasized, while the operation phase will focus on a **Community Development Plan**, a **Livelihood Promotion Plan**, and a **Local Area Development Plan** to ensure sustained benefits for affected families.

Compensatory measures for impacted households are structured around four categories: (i) compensation and R&R benefits under the RFCTLARR Act, 2013; (ii) commitments already made by NHPC in its Environmental Management Plan (EMP) supplemented by strengthened implementation strategies from the SIA Study; (iii) additional measures proposed by the SIA Study and agreed to by the project authorities; and (iv) further recommendations voiced by communities during public hearings, incorporated into the SIMP budget as a lump sum. Recognizing the limited prevalence of land transactions in the Upper Subansiri region and the ancestral value of land, the study recommends that the State Government establish a **floor price mechanism** to ensure fair compensation for landholders, especially for Tagin families who view land as a cultural and spiritual inheritance rather than a commodity.

The study acknowledges that delays in SUHEP have led to prolonged uncertainty, restricting affected households from making productive use of their lands and resources. Agriculture, especially paddy, maize, and shifting cultivation, has suffered alongside opportunities in small-scale horticulture and river-based livelihoods. The SIMP thus proposes a comprehensive R&R package for all Project Affected Families (PAFs), aligned with entitlements under the RFCTLARR Act, 2013, ensuring that displaced households, non-titleholders, and vulnerable groups receive equitable benefits. For displaced households, the plan includes housing provisions within the resettlement colony, compensation for structures, support for alternative housing through Indira Awaas Yojana, transportation allowances, and livelihood restoration. For vulnerable families—particularly women-headed households, elderly members, and marginal landowners—enhanced entitlements include **land-for-land provisions, additional compensation, medical allowances, and skill-building support**.

The SIMP also integrates a **Subansiri Indigenous Peoples' Development Plan (SIPDP)** tailored to the Tagin and other local tribes, focusing on cultural preservation, security from migrant influx, and promotion of eco-cultural tourism. Measures include development of motorable roads to improve access, fencing and renovation of

communal ritual grounds, preservation of sacred groves, and support for traditional festivals. The plan proposes the development of tourism assets such as river-view points, heritage interpretation centers, and eco-trails to complement livelihood diversification. A **Community Benefit-Sharing Framework** is proposed through a **Local Area Development Fund (LADF)**, financed from 1% of free power revenue, with 80% distributed equally among affected Gram Panchayats and 20% earmarked for the most impacted wards. Local Area Development Committees with community participation will manage this fund to ensure inclusive decision-making.

Employment generation remains a priority demand across all consultations. The SIMP recommends that NHPC guarantee recruitment of locals for Class III & IV categories during construction and operation, with priority given to affected families. Where direct employment is not possible, contractual jobs through project contractors must be reserved for local communities, backed by **need-based skill development programs** in trades such as masonry, carpentry, electrical work, IT, and tourism. Special provisions also include **petty contract opportunities**, support for women's self-help groups (SHGs), local transport services, and supply chain participation. For households unable to secure direct or contractual employment, an annuity option of **₹2,000 per month for 20 years** or a **lump sum of ₹5 lakhs** is recommended.

The SIMP emphasizes livelihood diversification through **agriculture, handicrafts, and tourism development**. Given the decline in shifting cultivation yields, the plan proposes horticulture promotion, agro-processing units, and support for bamboo and cane craft enterprises. The Subansiri reservoir area is proposed as a tourism hub, offering water-based recreation, fishing cooperatives, and stopover tourism for routes connecting Arunachal Pradesh with Assam. A dedicated Tourism Fund with community participation is proposed for infrastructure upkeep. Cultural promotion includes support for Tagin traditional events, construction of ritual houses, and preservation of oral histories through community museums.

To address construction-phase challenges such as **labour influx, muck disposal, blasting, and pollution impacts**, the SIMP recommends strict community-monitored committees led by local administration with NHPC representation. Specific measures include penalties for contractors violating safeguards, women's safety programs, and compensation mechanisms for damaged crops or houses, with ₹5 crores earmarked for rapid settlement of claims. Public Information Centres (PICs) on both banks of the Subansiri will ensure transparency, while grievance redressal committees at two levels (project and community monitoring committees) will handle complaints promptly.

Institutionally, the SIMP calls for strengthening NHPC's Project Environment Cell into an **Environment and Social Management Cell (ESMC)**, staffed with a Social Development Officer, Grievance Officer, Public Relations staff, and monitoring experts. An independent external agency is recommended for **impact monitoring and mid-term evaluations**, ensuring accountability and transparency. Adequate budget provisions have been made

for these arrangements. The successful implementation of mitigation measures, coupled with integration of CSR funds into local education, health, and SHG support, will not only address immediate impacts but also create sustainable long-term benefits for the Subansiri Upper project-affected region.

Assessment of Social Costs and Benefits

Social Costs and Mitigation Measures

The Social Impact Assessment (SIA) for the Subansiri Upper Hydro Electric Project identifies a wide range of social costs across different phases of the project cycle. These include direct impacts such as land acquisition (272.84 ha including 177.43 ha of private land), displacement of both landowners and non-titleholders, and loss of agricultural/horticultural productivity; as well as indirect impacts such as pressure on common property resources, cultural disruption, and security concerns arising from labour influx. The study emphasizes the need for early and continuous community engagement, particularly with the Tagin households, to build trust and ensure transparency in information sharing.

Mitigation measures recommended go beyond statutory compensation under the RFCTLARR Act, 2013. They include special livelihood restoration packages for landless and marginal households, cultural safeguards to preserve tribal ritual spaces, and a dedicated plan for vulnerable groups (women-headed households, elderly, and persons with disabilities). To ensure equitable benefit-sharing, the SIA proposes institutionalizing the Local Area Development Fund (LADF), with 1% of the project's power sales revenue earmarked annually for the 10 directly affected Gram Panchayats. The plan stresses robust internal and external monitoring, with mandatory community representation in grievance redressal committees. Additionally, NHPC is recommended to commit ₹4 crores towards CSR during the construction phase for health, education, and tribal welfare programs.

The study cautions that detailed mitigation plans often fail due to weak institutional arrangements. To avoid this, it proposes strengthening NHPC's Project Environment Cell into a dedicated Environment & Social Management Cell (ESMC) with professional staff for implementation and monitoring.

Social Benefits

Despite these social costs, the SUHEP promises significant benefits at the local, regional, and national levels. The project will generate 1605+ MW of clean hydroelectric power, contributing to grid stability in the Northeast and supporting India's low-carbon transition. The State of Arunachal Pradesh will receive 12% free power (amounting to several hundred crores annually), which can fund state-wide development initiatives.

For the directly affected families and communities, specific benefits include:

- Enhanced entitlements beyond the minimum under RFCTLARR Act, including land-for-land, livelihood training, annuity support, and housing provisions.
- Employment opportunities, both direct (Class III/IV jobs with NHPC) and indirect (petty contracts, transport services, construction labour, local supply chains).
- Boost to eco-tourism in Subansiri valley, with potential for river-view points, handicraft markets, and community-run homestays linked to reservoir tourism.
- Infrastructure improvements, including roads, bridges, health centres, and schools, financed through EMP, SIMP, CSR, and LADF.
- Improved access to healthcare and education, particularly for remote tribal villages, through CSR allocations and LADF projects.

If the SIMP is implemented in full, the project will not only offset the social costs but also provide transformative long-term development for the Tagin community and other project-affected households in Upper Subansiri.

Preconditions for Success

For this balance of costs and benefits to be achieved, three commitments are critical:

1. **State Government** must institutionalize the LADF and empower Local Area Development Committees (LADCs) to manage it.
2. **NHPC** must allocate adequate resources and strengthen the ESMC for faithful implementation of mitigation measures.
3. **Affected community participation** in all committees must be guaranteed to ensure accountability, trust, and cultural sensitivity.