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Socio-Economic Impact of Poppy and Marijuana Cultivation in Northeast India: A Sociological Study

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ABSTRACT

This sociological study investigates the socio-economic impact of poppy and marijuana cultivation in Northeast India, focusing on the responses of various stakeholders. Utilizing qualitative methods such as interviews and focus groups, the research captured the perspectives of farmers, government officials, law enforcement agencies, and community leaders. The findings indicated that while poppy and marijuana cultivation significantly contribute to local livelihoods, they also exacerbate social problems like addiction and crime. Stakeholder responses are diverse: some call for stringent law enforcement to curb cultivation, while others advocate for alternative livelihood programs and community development initiatives. The study highlights the complexity of the issue and underscores the need to incorporate diverse stakeholder perspectives in policy and intervention design to effectively address the socio-economic impact of illicit cultivation in Northeast India.

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INTRODUCTION

This paper examines the social impact of poppy and marijuana cultivation on the tribal communities in Manipur, Northeast India, focusing on moral aspects and the threat to future environmental sustainability. Reports indicate significant areas of poppy cultivation by the Kuki-Chin community, totaling 13,121.8 acres from 2017 to 2023. The Naga community reported 2,340 acres, and others accounted for 35 acres, amounting to a state total of 15,496 acres (India Today 2023). The widespread dissemination of these findings on social media has captured the attention of various stakeholders, prompting academic inquiries from multiple research perspectives. Northeast India, a region rich in cultural diversity and natural beauty, faces complex socio-economic realities influenced by various factors, including poppy and marijuana cultivation. While these crops have historical and cultural significance, their cultivation raises critical socio-economic questions. Understanding the interplay between cultivation practices, socio-economic dynamics, and stakeholder responses is crucial for formulating effective policies and interventions.



[Photo: Poppy and marijuana cultivation have significant environmental effects, contributing to deforestation, soil degradation, water contamination, and loss of biodiversity]

Poppy and marijuana cultivation in Northeast India presents a paradox phenomenon. Economically, these crops are valuable, providing livelihood opportunities and contributing to household income. Poppy cultivation, in particular, has historical and cultural roots in the region. However, these benefits come with socio-economic challenges such as drug addiction, public health issues, environmental degradation, and law enforcement difficulties. The illicit drug trade linked to these crops impacts local communities and regional security. In this context, understanding stakeholder responses is essential. Stakeholders include farmers, government agencies, law enforcement, civil society organizations, and local communities. Each group has different motivations, challenges, and aspirations regarding the socio-economic implications of poppy and marijuana cultivation. For instance, Brown discusses the debate on marijuana's medicinal benefits versus its risks (Brown 2023), while Smith et al. highlights the need for regulating poppy cultivation to control the opioid crisis (Smith et al. 2022).

BACKGROUND

This study aims to explore the complex dynamics of poppy and marijuana cultivation in Northeast India, focusing on stakeholder responses to their socio-economic impact. Using qualitative research methods, including in-depth interviews, focus group discussions, and surveys, the study seeks to understand the perspectives, experiences, and actions of various stakeholders. The research will uncover stakeholder motivations, challenges, and aspirations in addressing the socio-economic consequences of these cultivation practices. Ultimately, the study aims to inform evidence-based policymaking and intervention strategies that address stakeholder needs and realities, promoting sustainable development, equity, and well-being in the region.

The cultivation of marijuana and poppy in various regions, particularly in Northeast India, presents significant social and environmental impacts. These crops, while economically valuable, is also considered to have a multitude of implications that affect communities, ecosystems, and policy landscapes. This review examines existing sociological research on the socio-economic and environmental consequences of marijuana and poppy cultivation, with a focus on stakeholder perspectives and responses.

LITERATURE REVIEW

The cultivation of both marijuana and poppies has far-reaching social implications. While legal cannabis markets can lead to economic benefits and reduced crime rates (Caulkins et al. 2016), illegal operations for both cannabis and poppy cultivation are often linked to violence, corruption, and environmental degradation (Goodhand 2008; Kilmer and Pacula 2017). Furthermore, Mansfield and Pain (2008) argued that in the context of Afghanistan, poppy cultivation is both a symptom and a cause of ongoing social and economic instability. The economic benefits of marijuana and poppy cultivation are particularly known in this region with limited alternative economic opportunities. Studies have shown that income from these crops can be a reliable source of livelihood, supporting necessities such as children's education (Pacula et al. 2015; Villareal et al. 2018). However, this economic reliability is accompanied by social challenges, including increased violence and instability due to the illicit nature of the trade (Bucardo et al. 2005).

The health impacts of marijuana cultivation are complex, with research indicating both potential medical benefits, such as chronic pain management (Hill 2015), and risks, particularly concerning mental health and addiction among adolescents (Penning et al. 1982). Similarly, poppy cultivation for opium production is linked to significant public health issues, notably the opioid epidemic (Hanson and Chen 2007). Socioeconomic status plays a crucial role in the patterns of drug cultivation and use, often exacerbating existing inequalities (Hanson and Chen 2007). Furthermore, the implementation of medical marijuana laws varies significantly across different socio-economic contexts, influencing the extent of marijuana use and related social impacts (Pacula et al. 2015).

Effective regulation of marijuana and poppy cultivation is critical for mitigating the social and environmental impacts. Policies promoting sustainable farming practices and providing economic alternatives to illegal cultivation can help reduce the negative consequences (Campbell et al. 2019). The timing and context of policy implementation significant outcomes, as seen in the varied effects of medical marijuana laws (Pacula et al. 2015). Law enforcement's role in

combating illegal drug cultivation yields mixed results; while it can reduce illegal activities, it often leads to unintended consequences like community displacement and increased violence (Villareal et al. 2018). A balanced approach needs to be incorporated for community engagement and alternative livelihood programs is essential for sustainable solutions.

Despite the increasing focus on the socio-economic dimensions of illicit crop cultivation, there remains a significant problems and issues in understanding the responses of various stakeholders, including local communities, law enforcement agencies, and policymakers, with regard to the cultivation of poppy and marijuana in Northeast India. This gap is critical given the region's unique socio-political landscape and the pervasive impact of these activities on its socio-economic fabric. The existing literature has extensively documented the economic incentives driving poppy and marijuana cultivation and its implications for local economies and social structures (Sharma 2020; Singh 2019). However, there is limited empirical research exploring how different stakeholders perceive, react to, and manage the socio-economic consequences of such cultivation.

Specifically, there is a need to examine the complex interactions between cultural practices, economic necessities, and legal frameworks that shape stakeholder responses. Further, the impact of policy interventions aimed at curbing illicit cultivation on local communities' livelihoods and social dynamics remains concretely underexplored (Das 2018). There is also a lack of comprehensive sociological studies that incorporate the voices and experiences of the communities directly affected by these interventions. Understanding these perspectives is crucial for developing more effective and culturally sensitive policy measures.

Despite the well-documented economic incentives and implications of illicit crop cultivation, there is a notable research gap in understanding the diverse responses of stakeholders to poppy and marijuana cultivation in Northeast India (Sharma 2020; Singh 2019). This gap is particularly significant given the region's unique socio-political context and the profound socio-economic impact of such activities. Existing studies have largely overlooked the nuanced interactions

between cultural practices, economic needs, and legal structures that shape these responses (Das 2018).

SOCIAL IMPACTS

In Manipur, there are rampant cases of drug addiction resulting in deaths due to heroin overdose (substance abuse) and HIV/AIDS, which is widespread due to intravenous drug use (Sharma et al. 2019). Manipur currently has the highest prevalence rate of HIV (Human Immunodeficiency virus) among adults in the country (Press Trust of India 2018). SP (Narcotics and Affairs of Border) K Meghachandra Singh, in his address, spoke on the ill effects of illegal poppy cultivation and said that the drug trafficking scenario in Manipur is largely attributed to various external and internal factors (Chronicle 2023). Churachandpur, which is located in the southern part of Manipur bordering northwestern Myanmar, was the first district to be affected by heroin (Phanjoubam 1997). According to the study conducted, in this particular sub-division (Lungchong maiphei), Manipur, Northeast India, there has been empirical evidence of two perspectives of social impacts: the first one is concerned with health-related issues, and the second is the moral life of a cultivator (poppy). In the same way while engaging in the field (Lungchong Maiphei), it is learnt from one of the respondents (poppy cultivator) that at the age of sixty plus, he has become addicted to this poppy consciously and unconsciously while cultivating in the field to support their children's education.

One of the negative impacts is that several cultivators, be it women or men, become addicted consciously or unconsciously as daily wager cultivators, apart from several cases of death of youngsters reported from different villages in this sub-division (Lungchong Maiphei), Ukhrol district, Manipur, Northeast India. Another perspective is that of moral corruption shared by the social and religious leaders; according to them, drug abuse is a result of an easy way of making money as they can easily afford it. According to some of the respondents, the money invested in this type of cultivation does not last for long, and this has been testified by several respondents (poppy cultivators) from different villages.

Many countries and states have been grappling with the decision of whether to legalize or criminalize marijuana. Proponents of legalization argued for its potential economic benefits, reduced strain on law enforcement resources, and the right to personal freedom. On the other hand, opponents often cite concerns about public health, youth access, and potential increases in drug abuse. There is a growing body of research supporting the therapeutic benefits of marijuana for various medical conditions, such as chronic pain, epilepsy, multiple sclerosis, and chemotherapy-induced nausea. The debate often centers around access to medical marijuana, its efficacy compared to traditional medications, and regulatory frameworks for its distribution. Even in several places where marijuana is legalized, they continue to face various problems and issues while implementing regulations on its production, distribution, and sale.

The issues like taxation, product safety standards, advertising restrictions, and age limits for purchase are some of the ongoing issues that remain a concern in the public domain. In some countries, opium poppy cultivation is legalized for pharmaceutical purposes, primarily for the production of pain-relieving medications such as morphine and codeine. The question revolves around ensuring an adequate supply of these essential medications while preventing diversion into the illicit drug business. The main focus is on strategies to combat drug trafficking, reduce demand for illicit drugs, and provide support for individuals struggling with addiction.

Poppy cultivation can have significant socioeconomic implications, especially in the region where it is considered a major cash crop. The question of alternative livelihoods for farmers involved in poppy cultivation, economic development initiatives, and strategies to address poverty and inequality becomes one of the primary concerns of all the stakeholders. These are complex and multifaceted, involving a wide range of stakeholders including policymakers, law enforcement agencies, medical professionals, advocacy groups, and communities affected by drug-related issues. The discussions continue to evolve as new research emerges and societal attitudes towards drugs shifting.

ENVIRONMENTAL IMPACTS

Marijuana and poppy cultivation also have substantial environmental consequences. In regions where these crops are grown, deforestation and land degradation are common as farmer's clear forests to evade law enforcement (Bucardo et al. 2005). This has resulted in the loss of biodiversity and disruption of local ecosystems. The excessive use of fertilizers and pesticides contaminates water and soil, adversely affecting local flora and fauna and human populations depending on these resources, contributing to diseases like tuberculosis (French et al. 2022).

The indoor marijuana cultivation, in particular, has a high carbon footprint due to the need for artificial lighting, ventilation, and temperature control, exacerbating issues of climate change and environmental sustainability (French et al 2022). In regions like Southeast Asia and Latin America, poppy cultivation often involves the clearing of forests to create agricultural land, leading to significant environmental degradation. This deforestation results in loss of habitat, soil erosion, and a decrease in biodiversity (DW 2020). Environmental issues such as deforestation and soil degradation complicate the matter surrounding poppy cultivation, highlighting the intricate balance between economic needs and environmental sustainability (Nguyen and Lee 2021).

The field observation made in Lungchong Maiphei, revealed that the cultivators have reported the excessive use of fertilizers, contributing to numerous environmental problems alongside health-related issues. While aware of the detrimental environmental effects, these farmers feel compelled to continue such practices due to limited economic alternatives. The cultivation of opium in hilly areas poses serious environmental concerns, with drugs like cannabis, cocaine, opium, and ecstasy causing catastrophic impacts ranging from deforestation to land sinking. According to a new TNI report, drug cultivation and the policy responses to it have created an environmental crisis in Myanmar and other countries where opium, poppy, coca bush, and cannabis plants are extensively grown.

A study conducted by the US Department of Agriculture's Crop Systems and Global Change Laboratory suggests that increased carbon dioxide concentrations in a warming world may

significantly affect the potency of opium poppies. Higher carbon dioxide levels could result in more potent poppies, potentially doubling the morphine content compared to levels in 1950 (Lewis et al 2009). While this increase might benefit legal pharmaceutical uses, it also raises concern about the production of heroin. The negative impacts of these cultivation practices extend to human health. For instance, one female cultivator reported an increase in miscarriage-related cases and other health issues linked to the cultivation of poppy and marijuana. The use of excessive salt and urea has led to soil erosion and infertility, as noted by the horticulture department. This highlights the broader environmental costs associated with these agricultural practices and underscores the need for sustainable solutions.

INTRODUCTION OF ALTERNATIVE FARMING

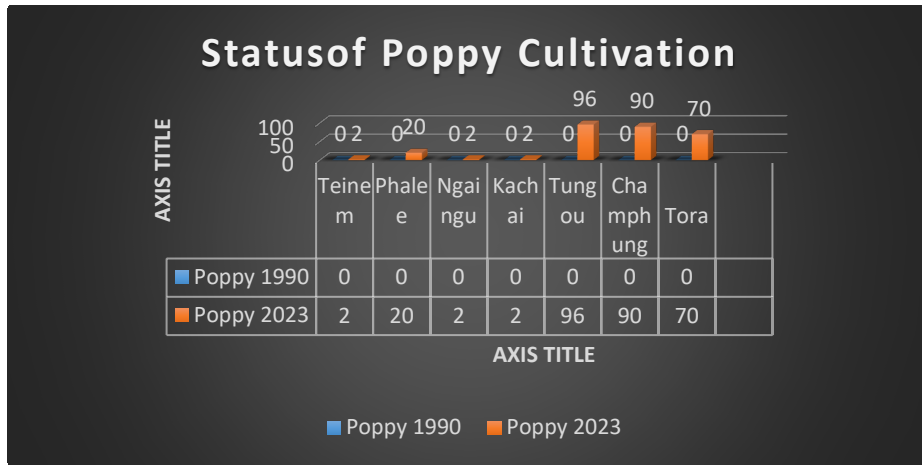
The District Forest Officer (DFO) of Senapati highlighted three major negative environmental impacts of poppy cultivation: deforestation, loss of biodiversity, and soil and water degradation (Sangai Express 2019). The Tangkhul Naga Civil Society Organizations (CSOs) forum recently organized a workshop on enhancing capacity to curb opium poppy plantations at the DRDA Hall, Mini Secretariat Complex, Ukhrul, which included various stakeholders such as government officials, social and religious leaders, activists, and representatives from different villages. The Deputy Commissioner of Ukhrul emphasized the need for a collective effort to build a sustainable society, urging the public to support the "War on Drugs" initiative by the Government of Manipur, stressing that addressing this issue requires more than just government and police intervention but active participation from all citizens. The Government of Manipur organized a workshop to promote alternative livelihoods in poppy-cultivated areas, addressing the negative impacts of poppy cultivation and exploring sustainable options (Government of Manipur 2022).

During the workshop, legal perspectives on the NDPS Act, 1985, were discussed, outlining the prohibitions on producing, manufacturing, cultivating, possessing, selling, purchasing, transporting, storing, and consuming narcotic drugs or psychotropic substances. Participants were informed about the legal consequences faced by poppy and cannabis cultivators under this Act. The growing area of poppy cultivation in Ukhrul District necessitates urgent intervention to

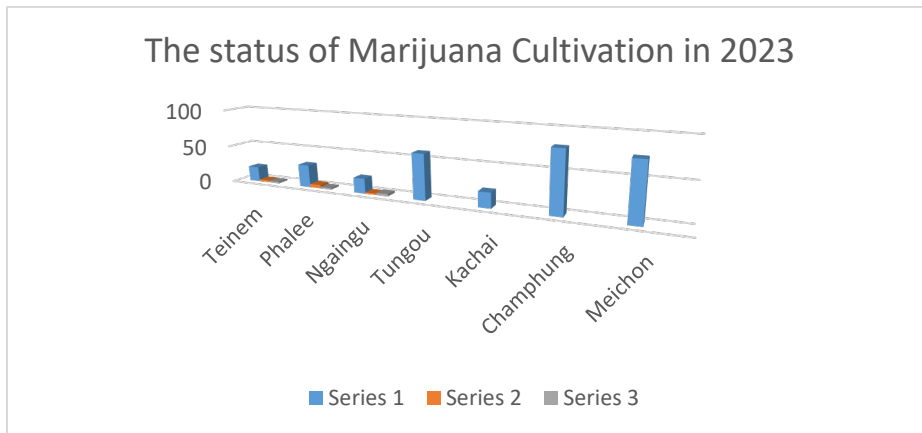
support the government’s drug-free initiative. Kashung, speaking from a socio-political perspective, called for strengthening the rule of law and social institutions to transition from a vicious cycle to a virtuous one, emphasizing the need for viable economic alternatives beyond agriculture, including development in the secondary and tertiary sectors. The District Forest Officer (DFO) of Ukhrul highlighted the severe environmental impacts of illegal poppy cultivation, such as soil erosion due to deforestation, frequent floods, and the rapid depletion of public funds. He asserted that these activities jeopardize future generations, making it imperative to curb poppy cultivation urgently. The DFO suggested viable alternatives such as cultivating lemongrass, kiwi farms, and fast-growing timber plantations, which could be facilitated by the forest department of Ukhrul in collaboration with the state government (The Frontier Manipur 2022).

Table:1 The seven major villages of Lungchong Maiphei according to 2011 census

Name of the Village	Male	Female	Family Household	Total number of Population
Teinem	2031	2027	802	4054
Phalee	1934	1088	794	3,022
Kachai	1092	1015	501	2107
Tungou	1022	949	352	1971
Champhung	408	374	152	782
Tora	377	381	141	758
Meichon	267	262	94	529



Sources: Based on the author interview with the respondents



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CONCLUSION

The shift from traditional farming to the precarious commercialization of poppy cultivation raises critical questions about the motivation behind this transition. Is the community compelled to engage in this farming for livelihood sustenance, or is it an easy route to quick money? To address these questions, this research incorporates views and opinions from various stakeholders, including social and religious leaders, government officials, and farmers engaged in poppy and marijuana cultivation, using qualitative research methodologies. The primary contention between cultivators and other stakeholders revolve around differing perspectives on livelihood and legality. Farmers argue that unlike the past, where food and shelter sufficed, modern security

includes education and employment, necessitating higher income of sources. Social and religious leaders contend that wealth from illegal cultivation does not bring long-lasting peace. The government maintains that illegal activities remain unlawful, emphasizing the need for concrete alternative livelihoods to replace illegal cultivation. Common concerns among all stakeholders include the adverse impact of poppy cultivation on social life and the environment, necessitating immediate intervention. Raising awareness and generating collective action are crucial to reducing the destruction and chaos observed in these tribal communities.

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