## TOURISM AND PEACE

rammu and Kashmir (J&K), often referred to as "Paradise on Earth," has long been celebrated for its breathtaking landscapes, rich cultural heritage, and diverse natural resources.

However, the region has also faced prolonged periods of conflict and instability, impacting its tourism industry and the overall well-being of its residents.

The intertwining of tourism and peace in J&K is crucial not only for economic growth but also for fostering communal harmony and rebuilding trust among com-

J&K has a complex history characterized by political strife and social unrest. The beauty of its mountains, valleys, and lakes has attracted tourists for centuries. but ongoing tensions have often overshadowed its potential as a tourist hotspot.

The late 20th century saw a significant decline in tourism due to violence and instability, leading to economic hardships for local communities that relied on

In recent years, however, efforts to stabilize the region and promote peace have begun to yield positive results. With a focus on dialogue, development, and community engagement, there is a growing recognition that tourism can play a transformative role in promoting peace and fostering economic growth.

Tourism is one of the most effective ways to stimulate economic development. In J&K, the industry has the potential to create jobs, boost local businesses, and generate revenue for the government.

The stunning landscapes of Kashmir Valley, including Dal Lake, Gulmarg, and Pahalgam, attract nature lovers and adventure seekers alike. Rich traditions, including handicrafts, cuisine, and

festivals, offer visitors a glimpse into the diverse cultural tapestry of the region. Activities such as trekking, skiing, and river rafting

have begun to attract a new generation of tourists.

The revitalization of tourism can lead to increased employment opportunities for local youth, reducing the appeal of militancy and violence.

When communities thrive economically, the impetus for conflict diminishes, paving the way for a more peaceful society.

Tourism has the power to break down barriers and foster understanding among different communities. By promoting cultural exchange and interaction, tourism can serve as a platform for dialogue and reconciliation. Initiatives such as community-based tourism can engage local populations, allowing them to share their stories, traditions, and hospitality with visitors.

For instance, homestays in rural areas can provide an authentic experience for tourists while generating income for local families.

These interactions can build mutual respect and understanding, encouraging visitors to appreciate the rich cultural heritage of J&K.

The J&K government, along with various stakeholders, has recognized the importance of tourism in the peace-building process.

Improvements in transportation, accommodation, and amenities are vital for attracting tourists. The government has been investing in road connectivity, airports, and hospitality services.

Campaigns to showcase J&K's beauty and cultural richness are essential. Collaborating with travel agencies, the government can promote J&K as a safe and : attractive destination.

Training programs for local youth in hospitality management, guiding, and other tourism-related skills can enhance the overall experience for visitors and ensure that the benefits of tourism are felt locally.

Despite the potential benefits, several challenges must be addressed to ensure the sustainable growth of

Ongoing tensions and incidents of violence can deter tourists. A sustained commitment to peace and stability is essential for rebuilding trust and attracting visi-The natural beauty of J&K is its biggest asset, and

protecting the environment is crucial. Tourism should: he developed in a sustainable manner to prevent degra dation of natural resources. Local communities must be actively involved in

tourism development. Their needs and concerns should guide policy decisions to ensure that tourism benefits all, rather than just a few.

While improvements are underway, there are still gaps in infrastructure that need to be addressed. Reliable transportation, healthcare, and communication services are essential for a thriving tourism indus-

The future of Jammu and Kashmir lies in the successful integration of tourism and peace-building efforts. By harnessing the potential of its natural beauty and cultural richness, J&K can create an inclusive and prosperous environment for its residents and

visitors alike. The journey toward peace is often complex and fraught with challenges, but by prioritizing tourism as a vehicle for economic growth and communal harmony, J&K can pave the way for a brighter future.

Through collaborative efforts among the government, local communities, and tourists, J&K can emerge from its turbulent past and embrace a new era characterized by peace, prosperity, and mutual respect.

Ultimately, the path to peace is not just about the absence of conflict but about creating opportunities for dialogue, understanding, and shared experiences that: bring people together.

## Green Entrepreneurship through Local Production of Ecofriendly Fertilizers and Pesticides

PROF. POONAM PARIHAR



\_Entrepreneurship encompasses developmentby new start-ups of green products, services & processes. The evolution of Indian agriculture post the

'Green Revolution" has witnessed remarkable changes leading to self-sufficiency in food production. However, the excessive use of chemical fertilizers and pesticides has adversely impacted soil and environmental health. This has prompted a shift towards exploring biological alternativessuch as biopesticides and biofertilizers to address concerns about sustainability and the need for pesticide-free produce. Thus, green entrepreneurship can contribute to sustainable development by focusing on the preservation of natural conditions or natural resources such as biopesticides, biofertilizers, wastewater treatment, renewable energy and biodiversity. The demand for eco-friendly fertilizers and pesticides is rising, particularly with the increasing adoption of organic cultivation practices. The status of biopesticides in India reveals a growing market, yet it constitutes a small percentage of the overall pesticide market. Factors such as insecticide resistance and environmental concerns with synthetic pesticides emphasize the need for eco-friendly alternatives. Although the consumption of biopesticides is on the rise, it has not reached the anticipated level. presenting challenges at both industrial and policy levels. The biopesticide market is expected to witness significant growth, constituting a larger share of the pesticide market. Similarly, the introduction of biofertilizers in India has shown promising results, especially in improving soil fertility and crop yields. Green Entrepreneurs can have a key role to play both in developing these innovations & bringing them to market. In general entrepreneurship is widely recognised as boosting economic activity & stimulating job creation (OECD, 2020 {17}). Increasingly, entrepreneurship is also being recognised as a means of addressing societal challenges including environmental sustainability.

Green entrepreneurship can contribute toprofound socio-economic upheaval and sustainable development, especially in emerging economies. This is dueto, on one hand, the adaptation and application of green practices, which means efficient allocation and management of locally avail-

able resources and therefore cost-effective. On theother hand, the market for green products is at domestic and internationallevel and offers tremendous growth prospects for both producers and exporters, thereby, canfurther facilitate the uptake of green practices in agriculture. Besideeconomic gains frame that green entrepreneurialfarming improves soil fertility, biodiversity, conserves natural resources and ultimately aid sustainable development (Sher et al., 2019). Green entrepreneurship represents a vision of rural communities managing their resources to jointly achieve three goals:

- a) Enhance rural livelihoods
- b) Conserve or enhance biodiversity and ecosystem services
- c) Develop more sustainable and productive agricultural system

The core of green entrepreneurship is ensuring that business is consistent with the natural functions of ecosystems and farmers will also no longer depend on costly chemicals and artificial pest control.

Different Types of Eco-Friendly Pesticides

1. Microbial: Microorganisms (bacteria, fungi, viruses, protozoans, ornematodes) are the main component of microbial pesticides. Although each individualactive ingredient in microbial pesticides is quite specialized for its intended pest(s), theycan control a wide variety of pests. These biopesticide classes have been effective in reducing weeds, plant diseases, and insect pests. Microbial biopesticides canbe applied to crops in a variety of ways, including as live organisms, dead organisms.and spores.

- 2. Biochemical: Biochemical pesticides are organic compounds that use non?toxic methods to control pests. These are employed to modify an insect's physiology, behavior, and even control. Biopesticides include compounds such as plant growth regulators that prevent breeding and population expansion, as well as compounds such as pheromones that either repel or attract pests.
- 3. Plant-incorporated protectants (PIPs): PIPs are biopesticide compounds that are made by plants from genetic material that has been incorporated into the plant.

Different Types of Eco-Friendly Fertilizers 1. Bio compost: It is a kind of organic fertilizer. which is prepared from the waste of the sugar

industry. The waste is decomposed using a number of human and plants friendly bacteria and Fungi. Bio compostconsists of nitrogen, phosphate solubilizing bacteria and plenty of useful fungi like the decomposingfungi. This biofertilizer helps the farmers to increase soil fertility and thereby increase the yield of thecrops.

2. Vermi Compost: It is also an organic fertilizer containing nitrogen phosphorus, potassium, sulphur, organic carbon, sulphur, hormones, enzymes, etc. If used over a period of time, the soil becomes extremely fertile and all the lost nutrients are restored back to the turf and the soil remains

- 3. Phospho: This is also a kind of bio-fertilizer, which releases insoluble phosphorous in the soil, makingit more fertile. It helps the plants to absorb nutrients & improve soil structure.
- 4. Rhizo N: It fixes the atmospheric nitrogen & makes it available to crop. It increases number & length of roots & shoots. It also improves the fertility of soil & reduces the use of chemical fertilizers (UREA). It helps in fixing the nodules on the roots of vegetables like peas, beans, etc., thereby, playing an important role in agriculture.
- 5. Azotobactor: Nitrogen plays an extremely important role in plant growth. Azotobactor improves the quantity of atmospheric nitrogen in the soil and makes it available to the plants. It also shields the rootsfrom other pathogens existing in the soil
- 6. Trichoderma: It is an eco-friendly fertilizer, which acts as a biocontrol agent and is hyper parasiticagainst different pathogens in the field.
- 7. Composter: A composter breaks down all organic substances like cattle waste, dead leaves, etc. presentin the soil and thereby increases the productivity of the soil.
- 8. Tricho-Card: It is an effective bio-fertilizer; which is an effective destroyer of eggs of many rodents, which eat plants and leaves. It is effective when used for many plants namely sugarcane, cotton, brinjal,corn, jawar, paddy apple, etc (Mishra, 2013)

Local production of ecofriendly fertilizers and

There is a large market potential for biofertilizer and biopesticide products that can only be tapped through a better understanding of rural markets and product/marketing constraints. To achieve these objectives, an extensive research and development effort in areas pertaining to production, quality assurance, field application, and knowledge transmission of biocontrol products is of great importance:

1) Neem leaves pesticide: Neem is a plant with

the scientific name Azadirachta indica. For those who are not familiar with it, it's an evergreen tree and can be found in tropical and sub-tropical areas. Neem leaf is well known as organic pesticide. The leaf as well as other parts of the tree is also widely used in medicine and for culinary purposes. Neem pesticide can be used to control caterpillars, grasshoppers, whitefly, and aphids.

2) Papaya leaves pesticide: Papaya leaves contain an active ingredient called "Papain", that is known to effectively control caterpillars and sucking pets. The papaya leaves pesticide can control termites, aphids, caterpillars and various insects.

3) Cow urine pesticide: Old cow urine diluted with water in ratio of 1:20 and used as foliar spray is not only effective in the management of pests, but also acts as effective growth promoter

4) vermicompost as biofertilizer: Vermicompost is the product of composting using various worms to create a heterogeneous mixture of decomposing vegetable or food waste, bedding materials, and vermicast.

In India, there are several examples of successful biopesticide applications: Bacillus thuringiensis for controlling diamondback moths; Beauveria for controlling mango hoppers, mealy bugs, and coffee pod borers; Bacillus thuringiensis for controlling Helicoverpaarmigera on cotton, pigeon pea, and tomato; neem products for controlling whiteflies on cotton; Trichogramma for controlling sugarcane borers; and Trichoderma-based products for controlling rots and wilts in a variety

Green entrepreneurs are driven by the goal toprotect the environment and achieve sustainable development by promoting ecofriendly strategies. The excessive use of chemical inputs has led to soil and environmental degradation, prompting a shift towards biopesticides and biofertilizers. Despite challenges, the growing market for these eco-friendly alternatives signals a positive trend.

Entrepreneurship in local production holds promise, aligned with goals of enhancing rural livelihoods and fostering sustainable agriculture. Agricultural extension plays a vital role in this transition, promoting awareness and reducing chemical reliance. In essence, the move towards eco-friendly solu-

tions represents a transformative journey for Indian agriculture, promoting resilience and environmental consciousness.

## Tourism and Peace: Bridging Divides and Cultures

DR. BHARTI GUPTA

27th September, World Tourism Day is celebrated globally under the auspices of the United Nations through the United Nations Tourism (UN Tourism), formerly known as the United Nations Tourism Organisation (UNWTO). Each year, the UN Tourism selects a specific theme to highlight the role of tourism in addressing global challenges. This vear's theme is "Tourism and Peace." This article delves into how tourism can act as a powerful force for promoting peace and fostering social harmony, and why its role is increasingly vital in today's interconnected world.

Tourism, a service sector, is a business for those involved in the supply chain and is one of the leisure activitie for those who wish to spend their leisure time seeing other areas of attractions. Tourism has unique features related to its phenomenon: the movement of people from their normal place of residence to the place of attraction called destination. The tourism process therefore

involves people being at some other place, far from the usual place of residence for the consumption of the experience-based tourism product creating consequential dependencies to meet the routine basic needs and the special needs that arise from the expectations of the tourismic experiences from the varied systems related to people, culture and environment of the place visited. Therefore, when tourists interact with locals in a new destination, in the process of the varied interactions, they learn about the host culture and also gain a deeper understanding of the shared humanity. Tourism allows individuals to step outside their familiar surroundings and experience the ways of life, traditions, and values of other cultures. This cross-cultural exposure plays a critical role in breaking down

stereotypes and prejudices, which are often the root causes of conflict.

For example, programs such as cultural exchanges, heritage tourism, and volunteer tourism (voluntourism) enable participants to immerse themselves in destination communities, building mutual respect and understanding. These interactions sow the seeds of tolerance, as visitors come to appreciate diverse ways of thinking and living. In return, host communities often develop more favorable views toward visitors, fostering a spirit of unity. The economic benefits of tourism are also seen as a pathway to peace. In regions where poverty and unemployment are catalysts for social unrest, tourism can provide muchneeded jobs, income, and investment opportunities. By driving economic growth, tourism helps stabilize vulnerable communities and reduces the appeal of extremism or conflict as a means of survival.

In post-conflict regions, tourism has often been instrumental in rebuilding economies and restoring hope. One of the most notable examples from India where tourism has played a crucial role in supporting post-conflict recovery is

The Kashmir Valley, known for its stunning landscapes, rich culture, and heritage, has faced decades of conflict and political instability. However, tourism has been instrumental in aiding the region's recovery and fostering peace and reconciliation. The Kashmir conflict, rooted in political disputes and violence, significantly impacted the lives of locals, disrupting livelihoods and deteriorating the region's social fabric. The revival of tourism became a beacon of hope for the people of Kashmir.

Tourism played a vital role in reviving the local economy by creating employment opportunities for thousands of Kashmiris. The region's tourism industry, which includes houseboats, shikara (boat) rides, handicrafts, and hospitality, offered a lifeline to those affected by years of conflict. This economic stability has contributed to reducing social unrest by providing livelihoods, particularly for the youth, who are often the most vulnerable during conflicts. The influx of domestic and international tourists to Kashmir has also helped bridge the cultural divide. Tourists visiting from different parts of India and the world get to experience the unique culture of the Kashmiri people. This interaction has fostered a sense of mutual understanding, reducing the isolation felt by Kashmiris during years of conflict. Such exchanges have gradually helped shift the narrative from conflict to collaboration and peace. Another example from India is the transformation of Sikkim, a region that experienced political instability in the 1970s when it merged with India. In the aftermath of these political tensions, tourism played a key role in bringing about economic and social stability in the region.

Today, Sikkim has become a model for eco-tourism, emphasizing sustainable development and peace. The state's focus on clean, green tourism has created jobs, improved infrastructure, and brought together diverse ethnic communities. Sikkim's peaceful transition from conflict to a stable society is an example of how tourism can act as a pillar for lasting peace and development.

Therefore, it can be said that in a post-conflict scenario, tourism has served as a medium for reconciliation. Tourism can act as a form of soft diplomacy, allowing countries to interact with one another on a person-to-person basis. International tourism provides an opportunity for nations to build relationships beyond political or frameworks. exchanges often serve as the foundation for diplomatic ties and peaceful negotiations

One notable example is religious tourism or pilgrimage to the Kartarpur Corridor. The corridor allows Indian Sikh pilgrims to visit the holy site in Pakistan without needing a visa. It has created a space for religious and cultural exchange despite the often tense political relationship between India and Pakistan. By focusing on shared religious heritage, both nations have demonstrated that tourism can serve as a neutral platform for easing political tensions. The initiative fosters goodwill and understanding between the people of the two nations, using religious tourism to connect people divided by borders but united by shared faith and history.

Similarly India and Nepa close historical, cultural, and religious relationship, which is reinforced by religious tourism. Thousands of Indian pilgrims visit Nepal every year. especially to places like Pashupatinath Temple in Kathmandu and Muktinath in Mustang. Similarly, many Nepalese pilgrims visit important Hindu and Buddhist sites in India, such as the Kashi Vishwanath Temple in Varanasi and the Buddhist pilgrimage circuit. The free movement of pilgrims between the two countries without the need for a visa strengthens people-topeople ties and enhances bilateral relations. Tourism is a tool for cultural diplomacy and soft power too. For instance, by promoting Buddhist heritage tourism, India strengthens ties with countries where Buddhism is widely practiced. For instance, the annual influx of Buddhist pilgrims from Sri Lanka, Japan, Thailand, and other nations fosters people-to-people connections and enhances India's soft power in the region.

While tourism holds great potential to promote peace, it is not without its challenges. Unregulated tourism can

lead to cultural exploitation, environmental degradation, and economic inequality.

In some cases, tourism has even exacerbated tensions, particularly when local communities feel marginalized or overwhelmed by mass tourism. To truly foster peace, tourism must be developed and managed responsibly. Here comes the role of Sustainable tourism encompassing responsible tourism practices. This emphasizes respect for local cul-

tures, environments, and economies. By promoting responsible tourism practices, destinations encourage visitors to engage with communities in a manner that preserves their way of life while supporting development. This respectful exchange fosters long-term peace by ensuring that tourism's impact is positive, rather than exploita

Tourism holds immense potential as a tool for fostering peace, unity, and understanding across cultures and nations. However, to fully harness this potential, it is imperative that policymakers and all stakeholders-governments, tourism operators, local communities, and travelers, tourism educationists-recognize the transformative power of tourism.

By promoting responsible and sustainable tourism practices, they can ensure that tourism not only drives economic growth but also contributes to the betterment of society. Efforts must be made to create policies and initiatives that leverage tourism as a force for social harmony, cultural exchange, and long-term peace. It is through this collective responsibility that tourism can truly become a catalyst for positive change in our increasingly divided world.

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## **Non-Timber Forest Products for Sustainable Livelihoods in** & Kashmir **Jammu**

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on-Timber Forest Products (NTFPs) have long been a cornerstone of rural economies, offering sustainable livelihoods to communities that depend on the forests around them. According to Shackleton et al. (2011), NTFPs are biological products derived from wild species by human populations across diverse landscapes, excluding timber. These resources hold immense value, not only for their direct use in local communities but also for their contribution to the global market, as demonstrated by the significant economic footprint of NTFPs in India. In India, NTFPs are a lifeline for nearly one-third of the rural population, with 60% of India's NTFP production consumed locally and nearly half of the total revenue in the forestry sector generated through NTFP sales... These products are especially vital for women and small-scale forest-based businesses, which account for 20-30% of the rural labour force and derive up to 50% of their income from these resources.

In the Union Territory of Jammu & Kashmir, the significance of NTFPs is particularly profound, with approximately two million people relying heavily on these products, as reported by the Jammu & Kashmir Forest Department (2021-22). With a forest cover of 20,230 square kilometers, indigenous groups such as the Gujjars, Bakkarwals, Gaddis, and Chopans benefit from a diverse array of NTFPs including fruits, nuts, mushrooms, medicinal plants, gums, resins and industrial materials like rattan and bamboo. These products not only hold cultural and economic value but also contribute significantly to biodiversity preservation and the sustenance of rural livelihoods. Key NTFPs in India, including bamboo and tendu leaves, play a critical role in both domestic industries and international trade. According to a report by the National Institute of Food Technology Entrepreneurship and Management (NIFTEM). tendu leaves alone have a market value of approximately Rs 1,000 crores, with annual production ranging from 3.3 lakh to 4.5 lakh tonnes. This accentuates the importance of NTFPs in the national

economy. Jammu & Kashmir has witnessed substantial production and export of NTFPs in recent years. In 2021-22, the region reported a total outturn of 9,838.56 quintals of various NTFPs, including Banafsha, Rasount, Deodar split wood and Chillon Oil, according to the Jammu & Kashmir Forest Department (2021-22). Between 2018 and 2023, significant exports included Bunafsha, Rasount, Mushkbala, Harad, Cedar Wood Oil and Deodar Stumps reflecting the region's rich biodiversity and resource utilization, as noted in the Digest of Statistics (2022-23). Market prices for NTFPs can vary widely, highlighting the unique value of each product. For instance, Gucchi Mushroom commands a premium price of Rs 20,000-30,000 per kg, while Wild Honey is priced between Rs 500-850 per kg.. Other notable NTFPs include Himalayan Cedarwood Oil priced at Rs 550-850 per kg and Chilgoza Dry Fruits Pine Nuts which sell for Rs 720 per kg. These prices underscore the potential for significant income generation through the sustainable management and marketing of NTFPs.

Policy support has been instrumental in promoting the sustainable use of NTFPs. The National Forest Policy of 1988 updated in 2018 emphasized the needs of rural and tribal populations, the conservation of natural heritage and public involvement, particularly of women.

In Jammu & Kashmir, the Forest Policy of 2011 and subsequent regulations, such as the J&K Forest Produce (Transit) Rules 2020 have aimed to facilitate the sustainable collection, processing and transportation of NTFPs. The 2022 policy further focused on in-situ conservation and community participation, with specific areas designated for NTFP activities in 2023-24 as noted in reports from the Jammu & Kashmir Forest Department (2022-23). However, the effective management and marketing of NTFPs face several challenges. To address these challenges, forestry institutes across India have been actively involved in training farmers and communities in the sustainable management of NTFPs.

The success stories emerging from these initiatives are truly inspiring. For instance, Abdul Rashid from Kishtwar who now earns Rs 50,000 monthly from harvesting Gucchi mushrooms and Rubeena Bashir who successfully transformed a 300-kanal patch into a thriving lavender farm exemplify the transformative power of NTFPs.

These examples, as documented in various local reports and collected by the authors by personal interview underscore the immense potential of local resources and traditional knowledge in fostering sustainable livelihoods and catalyzing community development. In conclusion, the sustainable management of Non-Timber Forest Products offers significant opportunities for enhancing local livelihoods, conserving biodiversity and tapping into the global market for natural products. Establishing proper markets and channels is crucial for making niche NTFPs particularly those with medicinal properties accessible to a broader audience. By focusing on the commercial potential of underutilized NTFPs, startups and local enterprises can unlock new avenues for economic growth and sustainable development in regions like Jammu & Kashmir.