

**A Partnership to Handle Waste Can be an  
Impetus to Development of Rural Tourism  
Destinations in Jammu and Kashmir**

By: Arhan Bagati

## Background and Purpose

Much needs to be done about waste piling up in rural travel and tourism destinations for Jammu and Kashmir's tourism economy.

For a start, this study by KYARI is a stand-alone initial step to engage with government and civil society. There is no study quantifying how much waste the countryside generates or commenting on the quality of this waste in Jammu and Kashmir. Neither is there any study documenting a change in the patterns of consumption and other related generation of waste in rural communities in the region. Like elsewhere in India today, villagers also discard glass, wrappings, plastics, e-waste, and even construction waste, especially from demolishing old structures.

A literature review did not point to any strategy or plan to do something about this menace in the villages. It pointed to enough literature on waste management being centred on urban or municipal waste. But there was nothing to be found on the quantity or quality of waste in tourism destinations in rural settings, nor of any initiatives undertaken to address the problem of waste in these villages.

Take for instance the government document titled '*Policy Regarding Jammu and Kashmir State Integrated Solid Waste Management Strategy 2017 Under Rule 11 (1) Solid Waste Management Rules, 2016*'. The 21 pages are limited to urban local bodies or municipalities. It does mention of waste from private gardens, and even of dairy and cattle sheds within city limits, but the character of the document is deliberately urbane. Same for the Action Plan

document for municipal solid waste management framed by the Housing and Urban Development Department (HUDD).

In short, both documents spread the government's attention to 17 clusters, all of which are urban. However, one cannot fault these documents because they have been produced by the HUDD that is mandated to plan for towns and cities. These documents owe their legitimacy to the Solid Waste Management Rules, 2016, according to which State and Union Territory governments were required to frame the Action Plans within a year. The 2016 rules framed by New Delhi extend to every community across the country, whether urban or rural. The only exemption is 'industrial areas', to which a different set of rules apply.

## **Rationale**

Villages produce waste. Even if rural communities do not produce as much waste as city-dwellers do; even if much of the organic waste they produce is recycled; and, even if the circular economies are waste consuming; yet it is very certain that 21st century villages do produce a lot of inorganic and inert waste. It is unreasonable to think that people in villages do not consume packaged, processed foods. They do.

However, besides the waste that villages generate themselves, rural habitations along routes to economic zones are, uninvitingly, strewn with refuse. Inert refuse like glass bottles, electric bulbs, and tubes; and plastic waste such as poly-packs, bottles, containers, and other discards from day-to-day usage like broken toys. There is also construction waste with rising purchasing

powers, and with it a rise in aspirations for a better quality of life. Waste, one might say, is a corollary to the theorem of development with time.

Waste is not something villagers want. They too want a good quality of living.

## **How Much Waste do Villages of Jammu and Kashmir Generate?**

A quantitative analysis is a first step to look for solutions. But there is no definite figure pegging the amount of waste generated by over 6,900 villages of Jammu and Kashmir. All we know is that the daily per capita waste production is 220 grams. This figure represents an average waste generated in both, urban and rural settings.

Our calculations are a back-of-the-envelope deal and point to a bare minimum of villages of Jammu and Kashmir producing at least 500 tonnes of refuse daily or 1.75 lakh tonnes of waste a year – assuming a population of least 1 crore people living in the Union Territory's villages (90 lakhs by 2011 census figures), and a per capita waste of a mere 50 grams per person per day.

As mentioned in the foregoing paragraph, the 1.75 lakh tonne figure is a very minimal estimation. In reality, it could be far much more. So, an honest and straight-forward answer to the question on the quantity of waste the villages of the Union Territory of Jammu and Kashmir generate will be: we don't know yet.

## **Waste in Tourism Destination Villages**

Models of handling waste using means and methods of participatory governance can collapse when the waste comes from outside the community, because of the ‘this is not our waste’ refrain and villagers being resentful when the waste arrives from outside their settings. Destination villages for travellers generate more waste. Worse yet, the locals must live with multiple volumes of waste they never generated in the first place. And all that they can do is complain.

From the above, this case study by KYARI attempts to address two broad questions:

1. What is the role of participatory governance models, and more generally of civil society, in handling waste in Kashmir’s destination villages?
2. How can the problem of solid waste be tackled in destination villages?

## **Waste: A Challenge to Civil Society in Tourism Destination Village Communities**

The mobilisation of villagers to handle the waste in their own backyards is an indication of how strong civil society is in their settings. The challenges to these forever traditional civil society mechanisms notwithstanding, village communities living alongside each other for generations share a common aspiration that aims to a desired quality of life.

It is for this reason that waste management in villages can be best tackled by villagers themselves. Handling and treating waste are a function of participatory governance. That is

how it has been done across generations. The aspiration for the minimal quality of living is an incentive. This participation in cleaning the surroundings is a taken-for-granted position, almost a thumb rule – disagreements are important to the discourse but are most often of academic interests.

Yet, this understanding of participation is challenged in destination villages because this is where the ‘this is not our waste’ argument kicks in. The route to the aspiration for quality of life, changes. From participation, it turns to escape. The ‘this is not our waste’ argument becomes ‘this is not MY waste’.

That is how waste not littered by the village communities themselves becomes a factor for possibly catalysing the disintegration of civil society in village settings.

## **The Case of Aharbal**

This study follows a fieldwork undertaken by KYARI, and centres on the case of Aharbal - a verdant tourist spot in Kulgam, about 75 kilometres from Srinagar. The route to Aharbal from Kulgam is strewn with heaps of polybags and single use plastics, like water bottles and single use Polystyrene (i.e., Thermocol) plates and cups. At places, the banks of river Vishav are a dumping spot for plastics and waste sanitary wares. In short, over years of tourist visits, a place prided by its residents as a small piece of 'Jannat-e-Benazir' has been turned into a dustbin.

The village itself is sorely in need of resources. For instance, villagers do not have access to water to grow vegetables even though they say that the water-table is just 20 feet deep. Besides some apple orchards, villagers cultivate maize.

The circular economy features of a village are very much intact in Aharbal. Organic waste is always composted, and the outdoors are cleaned especially on occasions like the Eid festivities.

Power failures are rampant, and the government health facility is at the tehsil headquarters in Manzgam, approximately 8 kilometres away - the only first aid centre is at a distance of around 3 kilometres. People, mainly Gujjars who have traditionally reared sheep, have abandoned sheep husbandry, and most young people migrate for work, particularly during the winters, as unskilled labourers - 'Majdooari' - to the neighbouring states of Punjab and Himachal Pradesh.

Aharbal is one of the many other similar hidden tourism spots of Jammu and Kashmir. A replicable methodology of giving a boost to tourism in Aharbal can be helpful in attracting tourists from elsewhere in the country to these tourist spots, providing a boost to the tourism economy of the Union Territory.

## **Aharbal Development Authority**

The tourist destination is administered by the Aharbal Development Authority (ADA), the government agency mandated for its development which is headed by a government-appointed administrator. The ADA has also built tourist infrastructure like huts, lodgings, boarding facilities, and a cafeteria which is leased out to a contractor. The communication between the

ADA and the local community is limited to the exchanges between the administrator and the contractor.

The tourists arriving at Aharbal since 1996 are predominantly from within Jammu and Kashmir itself, particularly from Srinagar, and are referred to as 'local tourists' or 'picnic tourists' - most of whom only do daytrips to visit the pristine Aharbal Waterfall. The primary complaint of the local tourists is that the tourist spots around the waterfall and the parks are not well maintained, and that there is littering all over. The litter is also seen along the trekking routes and in the meadows at higher altitudes. The litter, locals insist, is left at the site by visitors and is not of their making.

There is much to be streamlined in the working of the ADA. Presently, it is not in the jurisdiction of the Kulgam Municipality on which, nevertheless, it depends on for carrying waste to the dumping grounds. Most of the money in the ADA's budget for sanitation is known to have been left unspent, with a sizeable amount lapsing during 2021-22.

The ADA is modelled along the lines of similar development authorities in Pahalgam and Gulmarg. Yet, it has not been able to achieve a spot on Kashmir's tourism map. For instance, Pahalgam and Gulmarg have, since long, recognised the potential of littering in undoing all of their tourism promotions and have taken measures to address the problem of waste. Pahalgam, for example, has a scientifically assessed system in place to disintegrate the plastic waste and handle the wet organic waste.

The only, also stark, difference is that Aharbal remains situated in the realms of a rural setting while the other tourism locations of Pahalgam and Gulmarg are urban tourist centres with their



own municipalities. But the rural nature of the spot need not be an obstacle (more on this in the forthcoming sections of this document).

To the ADA's advantage, the Solid Waste Management Rules, 2016 now cover the Panchayats as well. Action Plans for rural communities can be drawn up to conform to these rules, just as the HUDD has done for the cities. The rural communities need not be neglected, as they have been, because waste is a problem for village folk and townspeople alike.

Jammu and Kashmir's Directorate of Rural Development and Panchayati Raj Institutions (PRIs) too must initiate consultations about waste generated by households and economic activities in rural settings, and bring out an Action Plan for Panchayats, similar to what their counterparts have done for municipalities. Indeed, the Solid Waste Management Rules, 2016 have set the scope for the same.

The 15<sup>th</sup> Finance Commission too has laid out a range of activities for Panchayats to undertake, and there is scope for the Panchayats to set up infrastructure and engage people to handle waste just like municipalities in towns and cities do. Moreover, the Solid Waste Management Rules, 2016 have even provided for local bodies to levy charges from tourists to make the services sustainable.

## **An Outline of Aharbal's Visitors**

Aharbal is a tourism destination primarily for local tourists from within Jammu and Kashmir. This destination is affordable for the tourists, unlike the Pahalgam-Gulmarg-Sonamarg tourist circuit where the costs of tourism are prohibitively high during the tourism season, lasting

sometimes more than 3 to 4 months. The cost of a tourist hut at Aharbal, for instance, is Rs. 500 per night. Presently, Aharbal has been designed for a lower tourist footfall. There are a total of 50 huts/rooms, compared to around 12,000 in Pahalgam and 1,600 in Gulmarg.

There is scope for more. While a pre-requisite for attracting tourists to Aharbal will always centre around marketing the place as a tourists' spot, the lack of upkeep and, particularly, the unclean face of the tourist destination, is a deterrent. The lack of a tourism economy is also visible as there are hardly any tuck-shops outside the fenced premises with the huts and other similar lodging facilities.

Most importantly, Aharbal has largely been spared of militancy and has known peace in the last many years. The summer of 2022 has seen a handsome footfall of tourists visiting Kashmir. Aharbal can be a destination for tourists from across the country with little attention to its present infrastructure and with an effort to keep the place clean and free of garbage all along the route from Kulgam to Aharbal, and along the trekking routes to Kousarnag Lake as well.

## **Voluntary Efforts**

Mudasir Ahmed Nayek, a local youth (aged 27) said that he and around 20 other young people volunteered in September 2021. They collected plastic trash that he describes as plastic bottles (mainly water bottles), polythene bags usually used to carry foodstuff, and empty packets of ready-to-eat snacks like potato chips (these packets are usually made of Biaxially Oriented Polypropylene (BOPP) on the inside, Low-Density Polyethylene (LDPE) and BOPP in the middle, and an outer layer of a Thermoplastic Resin). Mudasir says that the team brought down roughly 20 bags full of plastic waste.

He and others with whom the KYARI team met said that the ADA rarely initiated work to collect the garbage.

Over the years, Mudasir says that he has observed “a lot of change” in the locals' awareness and mindset. People have even made their own temporary bridges across the narrow crossing points of the river.

The ADA contractor taking care of the huts and lodges, Mujeeb Ur Rheman, says that the tourists do not bother and throw waste like plastic wrappers and water bottles without caring for the upkeep of the place. “There are just four boards urging people to ‘Use Dustbins’”, he says.

Both Mudasir and Mujeeb say that there are no dustbins along the 27-kilometre trek from Gurwattan to Kungwatan and on to Kousarnag. This is a major tourist attraction in the region and trekkers on this route have no option but to litter the place. There is no voluntary effort by the trekkers to return from the trek carrying back the discards.

Even the efforts of young locals like Mudasir are rare, since they also have to fend for themselves. At the end of the day, there is no remuneration for their volunteerism, and neither is there any recognition for the same.

## **The Need to Engage 'Safai-Mitras'**

There is immense potential to attract more tourists, but for Aharbal to figure on the map of the Kashmir tourism industry, the place must look clean. A first step for this to happen should be

to draw up a detailed plan with the collaboration of the local population so that the people look at themselves as partners in the process. This plan will need to draw up milestones in agreement with the residents of Aharbal so that there is joint monitoring, as well as ownership, to maintain the tourist destination.

The present model, revolving around the ADA, sees no participation from the people essentially because it is modelled around an ADA-contractor relationship.

Mujeeb says that an infrastructure will need to be put in place for the same. To begin with, the number of dustbins must be increased to cover the entire destination, with more boards in place to remind visiting tourists to use the dustbins and to not throw the litter all around.

The trek routes must also be rid of the litter, with dustbins being installed and emptied at regular intervals, and staff or cleanliness workers/'Safai-Mitras' being engaged to maintain the cleanliness. "We need at least 10 people during the peak tourist season," Mujeeb says. At present, he employs 3 persons for the maintenance of the place after securing the contract for Rs. 5 lakhs.

## **Harnessing the 'Swachh Bharat Abhiyan' Constitutional Background**

The 73<sup>rd</sup> Constitutional Amendment Act of 1992 added Part IX to the Constitution of India i.e., 'The Panchayats'. The 'Eleventh Schedule' that goes with the 73<sup>rd</sup> Amendment consists of 29 subjects wherein the Panchayats are given administrative control. This was one of the important

steps in strengthening the local self-governments and developing a 'responsible and responsive' leadership at the village level.

The 2 important subjects included under the 'Eleventh Schedule' are 'drinking water' and 'health and sanitation including hospitals, primary health centres and dispensaries'. To support the 'Gram Panchayats' Constitutional obligation, the PRIs and local communities are also vested with a key role in the planning, implementation, management, operation, and maintenance of in-village drinking water and supply and sanitation services on a long-term and continuous basis (Part IX).

Swachh Bharat Mission - Gramin (SBM-G) is the world's largest sanitation and behaviour change programme, leading all the States and Union Territories to declare themselves Open Defecation Free (ODF). With this, India went from sanitation coverage of under 40 per cent in 2014 to universal sanitation coverage in just 5 years. More than 6 lakh villages declared themselves ODF, over 10.50 crore toilets were constructed, and more than 60 crore people changed their behaviour of open defecation under SBM-G.

Now the efforts are directed towards sustaining and strengthening the ODF achievements and moving towards ODF-Plus status. The Government of India has approved SBM-G Phase-II to support villages with the sustainability of ODF outcomes and arrangement for Solid and Liquid Waste Management (SLWM) by 2024-25. For this, the service delivery focus is on SLWM and on continuous sanitation services.

Taking over the assets created under different Centre/State schemes, their operation and maintenance would be a major responsibility of the Rural Local Bodies (RLBs) and PRIs. It is

expected that every 'Gram Panchayat' and/or its sub-committees such as the Village Water & Sanitation Committee (VWSC)/'Pani Sami', etc. function as a 'local public utility' that can manage, operate, and maintain in-village water supply and sanitation services on a regular and long-term basis with focus on service delivery, rather than mere infrastructure creation.

## **Where Will the Money Come From?**

The successive Finance Commissions have recommended recovery of user charges for the provision of water supply services and revision of their rates commensurate with inflation so that at least the full operation and maintenance cost of providing these services is recovered. In case of a shortfall, in the interim, the 15<sup>th</sup> Finance Commission tied grant for water and sanitation can be utilised.

The tied grant is vital towards the renewed thrust to bring transformational and qualitative changes in the lives of people living in rural areas and enabling rural communities to plan, build, and manage in village drinking water supply infrastructure and sanitation facilities, as well as to make our villages - 'Water, Sanitation and Hygiene enlightened villages' i.e., WASH 'Prabuddh Gaon' on a long-term and sustainable basis.

A Rs. 1,42,084 crore tied grant to RLBs/PRI for water and sanitation for the 5 years 2021–22 to 2025–26 has been recommended by the 15<sup>th</sup> Finance Commission. This will have a huge impact on ensuring these services in villages and thus on public health and quality of life in rural areas. The 15<sup>th</sup> Finance Commission tied grants will ensure water supply and sanitation-related plans of the 'Gram Panchayats' are well executed to eventually function as 'local public

utilities' with a focus on service delivery. This is a big step towards strengthening the local self-government in line with the 73<sup>rd</sup> Amendment to the Constitution of India.

In all, the 15<sup>th</sup> Finance Commission recommended Rs. 2,36,805 crores to RLBs/PRI for the period 2021-22 to 2025-26. The Commission has also identified 'water supply and sanitation' as national priority areas, which determines the quality of life of people living in rural areas. It has recommended 60 per cent of the allocation i.e., Rs. 1,42,084 crores as a tied grant to be utilized for: a.) supply of drinking water, rainwater harvesting, and water recycling; and b.) sanitation & maintenance of ODF status.

### **What Does this Mean for a Tourist Destination like Aharbal?**

KYARI discussed the requirements of cleanliness of the region with residents of Aharbal. Contractor Mujeeb was emphatic that while something similar to a levy could be charged from tourists, it should not come from the rental tariffs that the tourists pay. Instead, there was agreement among many people that the money could come from levying a maintenance fee (or any other charge with an appropriate nomenclature) at the entry points on the vehicles carrying the tourists. A method could be worked out to determine the charges on the tourists on a per day basis.

They feel that a business model around cleanliness could charge a toll from incoming tourist vehicles. Charging a mere Rs. 20 per tourist per day can take care of the remuneration for about 10 'Safai-Mitras' around the year, they say.

This could generate enough revenue for the upkeep of the Aharbal tourist destination. Choudhary Sobia Paswal, a former member of the State Gujjar-Bakkarwal (ST) Board says that such employment for the local youth will also prevent them from migrating for work. He insists that the voluntary work done by the young men in September 2021 cannot be sustained.

A financially viable business model that ensures sustainable tourism, the generation of local employment in the service sector, and further revenue to the government by way of tax revenue will be a win-win outcome. Such a model is imaginable, given especially the provisions of the Swachh Bharat Abhiyan, the 15<sup>th</sup> Finance Commission, and the emphasis on sustainability of the ODF and sanitation schemes.

A model need not be re-invented entirely. Rather, it can borrow workable features from the other tourist destinations like Pahalgam and Gulmarg - both of which are success stories with features waiting to be replicated. One such workable feature is the installation of a waste treatment facility. The capital costs for this can come from the tied funds facilitated by the 15<sup>th</sup> Finance Commission. Alternatively, even a Build-Operate-Lease-Transfer (BOLT) model could be explored to fund the project. Avoiding this means a great opportunity cost to a visit-worthy tourist destination.

## **The Pahalgam Success Story**

Since 2016, Pahalgam's Solid Waste Management Plant (SWMP) has been serving the needs of the tourist destination. It lies way away from the areas that the tourists flock to, quietly but surely playing a role in realising the tourism potential of the location.



The 1 Metric Ton (MT) electro-magnetic disintegrator SWMP is presently over-worked, treating 2.5 to 3 MTs of dry waste daily. But for a stray exception, Pahalgam's dry waste is entirely plastic. The electro-magnetic disintegrator is unlike an incinerator that pollutes the air. The only waste is a dry ash that comes at the end of the process. The plant produces no more than 3 bags of ash from 1 MT of waste. The ash can go into landfills.

But this is not really ideal. Given the influx of tourists to Pahalgam in 2022, the plant's capacity might need to be hiked to 5 MTs as the years roll by. Nevertheless, it has secured the Pahalgam Municipality a bright spot on the Swachh Bharat Abhiyan map. Much credit for this goes to the people working behind the scenes. The officials of the tourism department who ensure that the plant is continuously fed with waste and the men running the plant (except for the junior engineer, the remaining manpower segregating the waste, and operating and maintaining the plant, is outsourced).

Additionally, the tourist town of Pahalgam also generates about 5 MTs of wet waste daily during the roughly 3-month long peak season, all of which is composted to produce manure with the aid of a bio-inoculum (using 2 kilos of bio-inoculum for every single MT of wet waste).

So, is this waste management facility spread over 17 kanals of land the answer to the waste management of the tourist spot? An answer in the affirmative will be misleading.

The plant is a piece of hardware. The software is a sustained campaign for behaviour change. That is where the intervention in Pahalgam stands out. The Pahalgam Development Authority (PDA) does not allow polythene carry bags into the area under its jurisdiction. The fact that the

town still produces up to 3 MTs of plastic waste is essentially due to the fact that tourists somehow manage to fetch polybags in, besides a small (though avoidable) quantity that comes in packaging material that shopkeepers and locals' source.

Boards appear at the entrance announcing to tourists that they are “entering a polythene free zone”. Other boards and communication material from the Municipal Committee of Pahalgam encourage tourists to be part of the process of making Pahalgam 100% polythene free. Notably, for driving a sense of ownership amongst the visitors, the message says, “Let’s make OUR Pahalgam 100% polythene-free”.

The mechanisation of this software behind the plant hardware is fuelled by a partnership between the PDA, the Municipal Committee of Pahalgam, and 3 local NGOs. Civil society organisations work with the public authorities (PDA, Municipal Committee, forest department, and others) and bring polybags from across Pahalgam to feed the machines at the SWMP. During the busy tourism season, these agencies conduct a drive every month. The clean environment is inviting and that means that businesses too lend their hands. Shopkeepers in Pahalgam insist they do not keep plastic packets and that tourists must make do with paper bags.

Besides, as Bilal Ahmed Mir, the Assistant Tourism Director at Pahalgam says, there is a stick that accompanies the carrot. “A team checks the market regularly. Shopkeepers are also aware. And there are fines, of up to Rs. 5,000,” emphasising that the deterrence comes in the form of both, encouragement and fear.

## **Conclusion**

There is every reason to believe that if things are put in place for cleaning up the tourist spot of Aharbal, and with the regular refurbishing and upkeep of the infrastructure that the ADA has already put in place, the rural spot can be a destination of choice for tourists. It is sure to be money spinner for both, the government and the locals. In the absence of a waste management plan, the beautiful tourist destination is rotting.

In short, a business can be modelled around handling waste in such a setting. And for this, rural governance structures, particularly Panchayats, must be enabled. All attention also must go into making the Aharbal experiment replicable so that the success can be taken to other similar verdant tourist spots, of which Jammu and Kashmir has many.

A starting point for any such effort needs to be documentation of the process and roping in civil society organisations in a partnership with tourism development authorities and PRIs or municipal committees, as the case might be.

**ENDS**

## References

1. "Action Plan for Municipal Solid Waste Management Jammu & Kashmir - 2018." *Housing and Urban Development Department*, Government of Jammu & Kashmir, 2018, <http://jkhudd.gov.in/pdfs/SWM%20State%20Action%20Plan%20J&K.pdf>.
2. "Ahrabal." *District Kulgam*, Government of Jammu and Kashmir, <https://kulgam.nic.in/tourist-place/aharbal/>.
3. "As per 15th Finance Commission Recommendations, Rs. 1.42 Lakh Crore Tied Grant to Panchayats for Water & Sanitation during 2021-22 to 2025-26." *Press Information Bureau*, Ministry of Jal Shakti, 29 Aug. 2021, <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1750188>.
4. Bhat, Dr. Raja Muzaffar. "Save Vishaw River of Kulgam." *Daily Excelsior*, 6 June 2019, <https://www.dailyexcelsior.com/save-vishaw-river-of-kulgam/>.
5. "File No.15 (2) FC-XV/FCD/2020-25." *Swachh Bharat Mission*, Ministry of Finance, 14 July 2021, [https://swachhbharatmission.gov.in/SBMCMS/writereaddata/portal/images/pdf/RLB\\_Guidelines\\_for\\_the\\_15th\\_FC.pdf](https://swachhbharatmission.gov.in/SBMCMS/writereaddata/portal/images/pdf/RLB_Guidelines_for_the_15th_FC.pdf).
6. Geelani, Syed Rizwan. "Solid Waste Management System to Be Reality Soon in Baramulla." *Greater Kashmir*, 27 Mar. 2022, <https://www.greaterkashmir.com/todays-paper/kashmir-todays-paper/solid-waste-management-system-to-be-reality-soon-in-baramulla>.
7. "Policy Regarding Integrated Solid Waste Management Strategy 2017 Under Rule 11 (1) Solid Waste Management Rules, 2016." *Housing and Urban Development Department*, Government of Jammu & Kashmir, 2017, <http://jkhudd.gov.in/pdfs/policy%20swm.pdf>.
8. "Solid Waste Management Rules, 2016." *India Environment Portal*, 8 Apr. 2016, <http://www.indiaenvironmentportal.org.in/content/427824/solid-waste-management-rules-2016/>.
9. "Solid Waste Management Rules, 2016." *Ministry of Environment, Forest and Climate Change*, The Gazette of India, 8 Apr. 2016, <https://moef.gov.in/wp-content/uploads/2017/08/SWM-2016-English.pdf>.
10. "SRO 45." *Department of Forest, Environment & Ecology*, Government of Jammu & Kashmir, 3 Feb. 2017, [https://www.jkforestadm.nic.in/pdfs/sro/SRO45\\_2017.pdf](https://www.jkforestadm.nic.in/pdfs/sro/SRO45_2017.pdf).
11. "The National Action Plan for Municipal Solid Waste Management." *CPCB*, Central Pollution Control Board, [https://cpcb.nic.in/uploads/MSW/Action\\_plan.pdf](https://cpcb.nic.in/uploads/MSW/Action_plan.pdf).
12. "The Report of the Fifteenth Finance Commission." *Press Information Bureau*, Finance Commission, 1 Feb. 2021, <https://pib.gov.in/PressReleasePage.aspx?PRID=1693868>.