WASTE DISCOURSES IN NEPAL

Recent shifts to sociopolitical concerns

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ABBREVIATIONS

ADB	Asian Development Bank
CBS	Central Bureau of Statistics
CIUD	Centre for Integrated Urban Development
KTM	Kathmandu
NCCR	Nepal Centre for Contemporary Research
SWM	Solid waste management
SWTCC	Solid Waste Technical Cooperation Centre
SWMA	Solid Waste Management Act, 2068 (2011)
MSW	Municipal Solid Waste

1. INTRODUCTION

This paper identifies and discusses current discourses on solid waste management (SWM) in Nepal as they both shape and mirror waste practices and policies in the present social, economic, and political context of Nepal.

Since the end of civil war[1], new terms, phrases, and narrations have emerged around sanitation and waste management in Nepal. Direct and indirect sources of these were major national political events, such as the decade-long armed insurgency (1996-2006), the Comprehensive Peace Agreement (2006), the abolishment of the monarchy and promulgation of the Interim Constitution (2007), the Madesh protest (2007), the election of the Constituent Assembly (2010 and 2013) and the promulgation of the new Constitution (2015), as well as exogenous events, such as the devastating earthquake (2015), the Indian blockage (2015) and the Covid-19 pandemic (2020-2022).

During the decade-long insurrection of the then Communist Party (Maoist) and the subsequent transitional period, many new discourses emerged in Nepal that were related to strengthening and establishing rights of marginalized and poor people of Nepal (Upreti, 2009). Concepts and statements focusing on people's empowerment, social justice, and the organization of the poor and marginalized for collective bargaining, etc. created together what we call a positive progressive discourse, which has been debated and challenged but has also been integrated into new constitutional provisions.

The Comprehensive Peace Agreement[2] (CPA) contains many progressive provisions for the poor and powerless that are to be ensured by the state. For example, clause 3.5 of the CPA states, *"to carry out an inclusive, democratic and progressive restructuring of the state by ending the current centralized and unitary form of the state in order to address the problems related to women, Dalit, indigenous people, Janajatis, Madheshi, oppressed, neglected and minority communities and backward regions by ending discrimination based on class, caste, language, gender, culture, religion, and region*". The CPA represented a rights-based discourse (Upreti and Sapkota, 2017) used in political negotiations that later entered the SWM sector in form of people near landfill sites raising concerns of their rights.

The new Constitution[3] promulgated in 2015 (NLC, 2015) includes special provisions on water and sanitation. Part 3 of the Constitution elaborates on the fundamental rights and duties of the state and citizens whereas article 35, clause (4) states that "*every citizen shall have the right of access to clean drinking water and sanitation*" reflecting the prevailing rights-based discourse on waste management in Nepal.

The new Constitution also provided scope and opportunity for multiple actors to debate issues that are directly related to people's life, such as sanitation, clean water, waste, etc. For example, Schedule 7 of the Constitution identifies water supply and sanitation as a joint responsibility of the federal and the provincial governments and Schedule 8 defines "*basic health and sanitation*" as the responsibility of the local governments. Furthermore, political parties have started addressing SWM issues in recent years. Their election manifestos[4] made commitments to

[1]The Comprehensive Peace Agreement (CPA) was signed in November 2006, the country was transformed from active armed conflict. Prior to November 2005, the entire nation was focusing on ending the civil war. Therefore, other important issues like SWM were not the priority and hardly addressed.

[2]https://peacemaker.un.org/sites/peacemaker.un.org/files/NP_061122_Comprehensive%20Peace%20Agreement%20between%20the%20Government%20and%20the%20CPN%20%28Maoist%29.pdf

[3] https://lawcommission.gov.np/en/wp-content/uploads/2021/01/Constitution-of-Nepal.pdf

[4] https://inseconline.org/en/election-post-type/party-declaration-letter/

address SWM challenges. For example, the 2022 national election manifesto of the Communist Party of Nepal (Unified Marxist-Leninist) (CPN(UML)) calls for landfill sites to be managed systematically and compulsory segregation of waste at source at the local level. It promises the use of modern technology to produce usable materials from recyclable waste and to make compost and energy from decomposable waste; non-recyclable and non-decomposable waste should be properly managed with full safety and security provision in collaboration with the private sector. Other political parties, too, addressed the SWM issue, which became an important point of debate in the 2022 election, especially in the Kathmandu Valley, severely affected by the mismanagement of waste. An independent mayoral candidate chose SWM as a major issue of the election and he won eventually. Once in office, he started various activities related to SWM.

Waste discourses and practices also shifted in the wake of the devastating earthquake of 2015. In a post-earthquake assessment report, the Government of Nepal outlined different provisions related to waste (NPC, 2015)[5]. Under the heading of "*Settlement Planning Approach for Rural Housing*" the report states, "*it is important that housing reconstruction is viewed in larger terms to include community infrastructure within the settlements such as access to water, sanitation, waste disposal, energy, risk mitigation measures and others. At the local level, consultative processes with the community should be undertaken to identify the community infrastructure that needs to be built, repaired, improved, augmented, or enhanced, and mechanisms should be developed for implementation. Efforts should also be made to promote planning principles*" (NPC, 2015). These statements show that SWM has become a matter of urban development (NSO, 2022). Many innovative SWM practices were adopted at the time of the earthquake (Upreti et al., 2020; Ghale, Subedi and Upreti 2023).

The Indian blockade[6] (2015-16) did not only pose severe challenges (Matthew and Upreti, 2018) to manage solid waste in the Kathmandu Valley and other big cities, but it also led to the emergence of new statements related to waste management (e.g., waste segregation, composting of organic waste). New statements, such as linking waste management to economic incentives, started during and after the blockade by India. Similarly, new statements related to waste rose during and after the Covid-19 pandemic[7]. Most of them were related to the safety and security of waste workers, waste reduction, participation, etc. Together, they created crisis-led waste management discourses.

This paper will examine these and other discourses in more detail through an analysis of statements related to waste (management) made by different actors in Nepal and found in official documentary sources. Chapters 2 and 3 will present the methodology and the analytical framework, respectively. Chapter 4 will present waste discourses in official (government) and in donor documents, as well as examine verbal and written statements from officials, the media, activists, household waste generators, waste-affected populations and waste workers to uncover diverse waste discourses. Chapter 5 summarizes the different identified waste discourses and places them in a matrix, showing a partial shift from technical-managerial to socio-political discourses. Chapter 6 discusses the findings in the general context of Nepal's political changes.

[5] https://www.npc.gov.np/images/category/PDNA_volume_BFinalVersion.pdf
[6] https://nmbu.brage.unit.no/nmbu-xmlui/bitstream/handle/11250/2618546/Master%27s%20Thesis_%20May%202019_Jhabakhar%20Aryal_Final.pdf?sequence=1&isAllowed=y
[7] https://ccmc.gov.np/ and https://covidnepal.org/

2. METHODOLOGY

Our documentation and discussion of recent waste discourses in Nepal are conceptually inspired from Michel Foucault's 'Archaeology of Knowledge' (Foucault, 1972) that aims to uncover *"ways of constituting knowledge, together with the social practices, forms of subjectivity and power relations, which inhere in such knowledge and relations between them"*[8]. Foucault (1972) highlights how economic structures, social institutions and customs, the inertia of mental attitudes, technological practice and political behavior interact to develop particular discourse over time. This perspective underpins the analysis of waste discourses in this paper.

As discourses produce contextual meaning, we aim to identify specific discourses in particular contexts that may shape, and may be shaped by, specific waste management laws, policies, and practices. We also attempt to relate discourses to different waste stakeholders (waste generators, residents near landfill sites, waste collectors, waste activists and environmentalists, municipal, provincial, and central-government officials, and private sector companies) to gauge their understanding and thus their behavior in relation to waste management. People use and reproduce context-specific discourses shaped by local power relations, local situations, experiential knowledge, personal interests, and social order. Hence, examining discourses of different groups of stakeholders help understand their specific meaning they attach to waste and how they try to legitimatize their specific knowledge about waste. A recent study of waste discourses in Sri Lanka (Fernando and De Silva, 2021) also showed that discourses changed over time. Discourses emerge in a certain context, forming what Fernando and De Silva (2021) refer to as 'contextual narratives'.

We have used discourse analysis as a research method to see what written words, terms, phrases and statements are used in texts and in speech. Phrases (or what Foucault called "énoncés" or "statements") that are related to each other and together generate meaning build discourses. However, the identification of a particular discourse from a number of statements requires some degree of interpretation, which can be helped by knowing the context. Bringing together statements and context into discourses creates meaning. For this paper, we have first collected recent statements related to waste from multiple sources. In a second step, we attempted to cluster the statements and distill specific discourses from them. Finally, we categorized the main identified discourses along two criteria (see chapter 3) and discussed them in relation to their spatial-temporal context.

For this purpose, we have reviewed notes (interview notes, transcriptions, photographs) taken in the past six years while visiting SWM field sites in the Kathmandu Valley and in Kakani and Dhunibesi municipalities (where the Sisdole and Bancharedanda landfill sites are located). We identified specific words, concepts, phrases, sentences, narratives, and perspectives from the transcripts and records of 31 key informant interviews, 18 in-depth interviews, and 12 focus group discussions. Furthermore, we reviewed policies, laws and regulations, official reports, and government documents (ADB, 2013; CBS, 2021; Nepal et. al., 2022; NLC, 2015) to distill statements related to waste (management). Fifteen such documents were analyzed. We also collected statements related to waste from social media platforms (Facebook, Twitter, and LinkedIn), which covered waste issues widely during crisis moments.[9]

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[8] https://www.massey.ac.nz/~alock/theory/foucault.htm#:~:text=Discourse%2C%20as%20defined%20by%20Foucault,of%20thinking%20and%20producing%20meaning.

[9] This project being a spinoff from the r4d research project "Challenges of Municipal Waste Governance in South Asia" (2018-2023), we have visited the research sites, interviewed stakeholders and key informants, conducted focus group discussions, and invited stakeholders to project events, over a relatively long period of time. These

For the contextualization of the statements related to waste (management), we referred to our previous research findings on SWM in Nepal (Upreti et. al., 2020 and 2022) and consulted additional literature on issues, challenges, and public concerns regarding solid waste management (Nepal et al., 2021, 2022a&b; Bharadwaj et al., 2021, 2020; CBS, 2021; ADB 2012; and Rai et al., 2019).

activities produced a large data set. Further, we have reviewed relevant documents (laws, policies and unpublished reports) and (social) media reports since 2018.

3. ANALYTICAL FRAMEWORK

For the discussion of the identified recent waste (management) discourses in Nepal, we attempted to put them in categories. For this purpose, our analytical framework has been inspired by Moore (2012), which categorizes waste concepts found in the scientific-geographical literature along two axes, i.e., positive-negative and dualist-relational. The first axis (positive-negative) determines whether waste is given a "specific nature or character". 'Positive', there, means that the concepts "imbue waste with a specific, unique quality"; 'negative' signifies that the concept assigns "no specific meaning to waste". The second axis (dualist-relational) indicates whether waste is "separate from or linked to society". 'Dualist' means that waste and society may interact but that they are "distinct entities" while 'relational' means that waste and society are seen as "mutually constitutive" (Moore, 2012: 782). Moore places identified waste concepts in one of the four quadrants. For example, the understanding of waste as a 'hazard', a 'manageable object', a 'commodity' or a 'resource' is put in the dualist-positive quadrant; waste framed as a 'fetish', 'filth' or a 'risk' is placed in the positive-relational quadrant; 'out of place' and 'disorder' are put in the dualist-negative quadrant and 'governable object', 'abject' and 'vital actant' in the negative-relational quadrant (Moore, 2012).

For the purpose of our analysis, we needed to adapt Moore's framework to the context of Nepal and because we identified statements and discourses from primary sources, including texts (reports, newspaper articles, manifestos, etc.) and speech (interviews, focus groups) while Moore defined scientific concepts based on a literature review (secondary sources). Our analysis is also more on SWM than on waste conceptualizations only. This meant that some of Moore's concepts (e.g., filth, fetish, abject) were not clearly discernible from the analyzed statements while discourses emerged that are not directly related to Moore's concepts (e.g., political resource, socioenvironmental justice).

Furthermore, we adapted Moore's two axes. For instance, 'positive' relates in our case also to discourses that frame waste as an economic, political or social resource, for which the inherent material and visceral properties of waste are important. For example, particular waste has market value or waste, thanks to its particular visceral qualities, can be effective as a political lever. In these 'positive' discourses, waste is used by humans to achieve certain objectives; post-humanist approaches may even assign agency to waste. By contrast, 'negative' waste statements relate to externalities, something that waste or waste work is leading to regardless of its material qualities. In 'negative' discourses, the inherent qualities of waste are considered only through its effects (e.g., on the environment, on the economy, on waste workers).

Instead of the dualistic-relational opposition, we prefer to use a continuum from technical-managerial to socio-political waste discourses that refer to both the framing of the waste problem and the proposed solutions. Technical-material framings are related to Moore's dualistic concepts in the sense that waste is seen as something 'out there' to be resolved without having to address deeper social and political relations. The waste problem is seen as resolvable through the adoption of appropriate technologies, suitable regulation, right incentives, and improved individual behavior. This discourse reflects the mainstream technocratic view of SWM held by many engineers, economists, public administrators, and environmentalists. By contrast, 'socio-political' waste discourses imply that the waste problem is related to unequal social structures, power, and politics. To address the waste issue, therefore, you need to address social and political issues. This also relates to Moore's relational concept that sees waste and society as intrinsically interwoven. This view, held more frequently by social activists, implies that the waste issue cannot be resolved by technical-managerial approaches alone but necessitates the empowerment of (informal) waste workers and waste-affected communities. Or more generally, "MSWM is … not only a 'global challenge for engineers' (Jayasinghe et al. 2013) but it also necessitates an understanding from social science perspectives…" that examine "power

relations, politics and governance" and "sociocultural imaginaries of waste and their influence on the social acceptability of particular MSWM practices" (Véron et al. 2018).

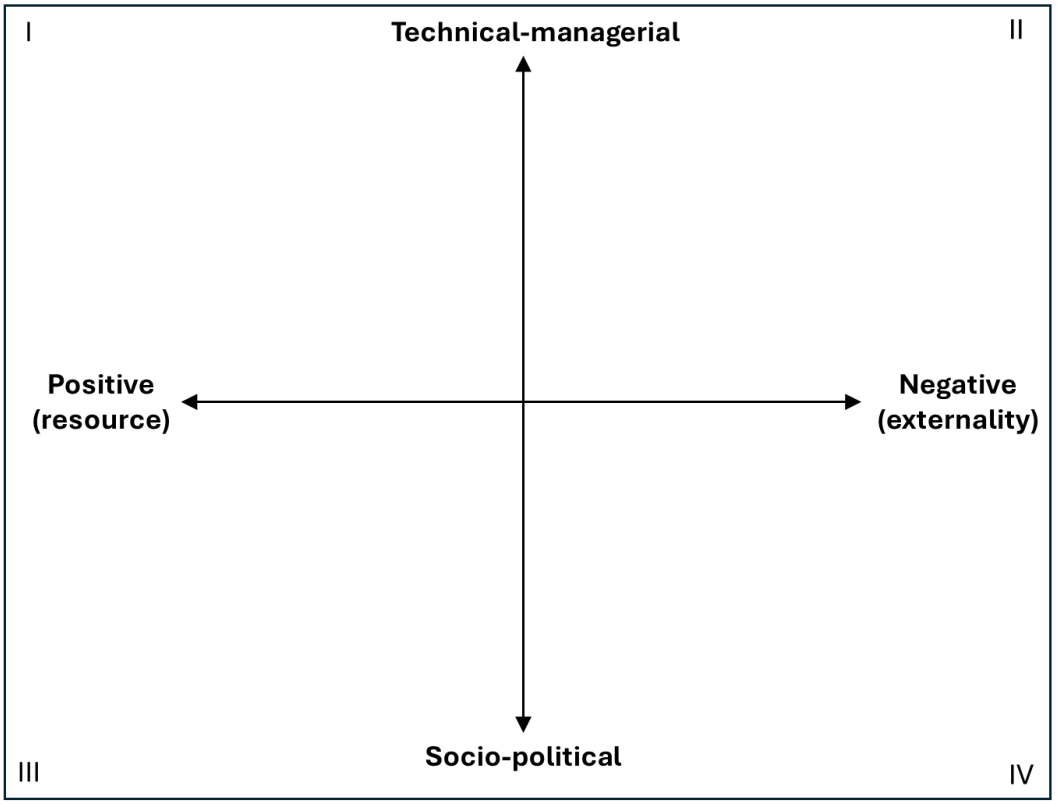

Figure 1: Categorization of waste-related discourses (adapted from Moore (2012, p. 782))

After identifying and describing the SWM related discourses in Nepal and in the Kathmandu Valley in particular (see chapter 4), we have placed them in one of the quadrants for the analysis (see chapter 5).

4. FINDINGS: STATEMENTS AND DISCOURSES RELATED TO WASTE (MANAGEMENT) IN NEPAL

4.1. NEPALI TERMS FOR 'WASTE': 'FILTHY DIRT'

The Nepali words *fohor* and *fohor maila* (or *fohormaila*) were most frequently used in texts and interviews analyzed for this study for what we usually refer to as 'waste' or 'garbage' in English. The words *fohor* and *fohormaila* were often used interchangeably. *Fohor* means dirty, filthy, vulgar while *maila* means dirt so that *fohormaila* would literally mean 'filthy dirt'. *Fohor* and *fohor maila* are generic terms for dirty materials, rotten or decomposed materials, materials having unpleasant smell, unclean materials unusable or useless materials, etc.[10] Sometimes, waste is also described as *sadegaleko ghin laagdo bastuko* (lit. worthless disgusting things). A distinction between *kuhine fohor* (decomposable waste) and *nukuhine fohor* (non-decomposable waste) is made. The terms used for what we would describe as waste management are *fohor byabastahapan* (lit., organization, regulation or management of waste) and *fohorko dirghakalin samadhan* (a lasting solution for waste).

4.2. OFFICIAL DOCUMENTS: WASTE AS A MANAGEABLE OBJECT

In this section, we describe how waste is presented in official documents such as government policies, laws and regulations. Some new waste concepts and statements were introduced during the time of formulations of laws, regulations and operational procedures of SWM (NLC, 2011; NLC, 2013). Others were first introduced by activist lawyers and concerned groups and they were later incorporated into official documents.

The first act related to SWM in Nepal was the Solid Waste (Management and Resource Mobilization) Act 2044 (1987). It calls for the 'management' of waste (defined as 'materials in a state of disuse' or 'materials having been disposed of') for the 'health convenience' of common people by the 'control of pollution'. The Act briefly mentions 'waste collection equipment' and 'containers' for waste storage. More elaborate are provisions regarding the functioning of a Solid Waste Management and Resource Mobilization Centre and 'prohibitions' and 'penalties' related to waste dumping and littering.

The first policy document on SWM in Nepal was the Solid Waste Management National Policy 2053 (1996). It states a 'lack of proper management of solid wastes' and its 'adverse effect [on] public health and environment' caused by 'increased … density of population, urbanization and industrialization' and 'no growth of public awareness' (NLC, 1996, p. 1).[11] In the Policy, terms such as 'solid waste collection', 'waste transportation' and 'waste disposal' were mentioned for the first time in official documents in Nepal. The Policy states objectives such as to 'privatize [waste work]' or 'mobilize the solid wastes as resources' (p. 1).

The Solid Waste Management Act, 2068 (2011)[12] affirms in its preamble that 'it is expedient to make the management of the solid waste in a systematic and effective way' for 'maintaining a clean and healthy environment' (NLC, 2011). Article 2(o) categorizes waste into 'domestic waste', 'industrial waste', 'chemical waste', 'harmful waste', 'solid waste', etc. The Act includes

[10] https://aahasanchar.com/archives/4732

[11] https://lawcommission.gov.np/en/wp-content/uploads/2021/01/Solid-Waste-Management-National-Policy-1996.pdf&ved=2ahUKEwj02p71j-CFAxWA3AIHHcy-C1YQFnoECBoQAQ&usg=AOvVaw2oLMGymvHElz2ReVYLXqAN

[12] The Act was authenticated and published on 2068/3/1 (2011/7/ 21). https://faolex.fao.org/docs/pdf/nep137767.pdf

separate chapters on 'segregation' between 'at least organic and inorganic waste', and on 'reduction, reuse and recycling use'. Going beyond the SWM Policy of 2053 (1996), the Act introduces the notions of 'transfer stations', 'waste processing plants', 'waste compost plants', 'biogas-plants' and 'sanitary landfill sites'. Furthermore, the Act defines 'fines' as 'punishment' for particular 'offenses', such as dumping waste, obstructing waste collection, transportation, and even failing to segregate waste.

Apart from legal provisions directly related to SWM, the Environment Protection Act, 2019 (2076)[13] refers to waste as well. Here, waste is defined as 'the liquid, solid, gas, slurry, smoke, dust, radiated element or substance … disposed in a manner to degrade the environment' (p. 3) and usually mentioned in connection with 'pollution'.

Furthermore, the Local Government Operation Act of 2074 (2017) mandates municipalities to deal with solid waste management (collection and processing of waste from homes, streets, etc.) and with waste-related disputes between neighbors, but without any particular framing of the waste problem (NLC, 2017).

The above-mentioned statements from official documents add up to a discourse of waste as something that can and should be managed for a clean city, a better environment and public health. This discourse echoes the concept of waste as a **'manageable object'** that Moore (2012) identified from the academic literature of the geography of waste. In the policy documents since the 1990s, waste is categorized in distinct waste types (domestic waste, hazardous waste, etc.) to make it manageable with different technologies (composting plants, sanitary landfills, etc.). The texts point to the waste chain (generation, collection, transportation, recovery, disposal), which is the basis of 'modern' or 'scientific' waste management. The 3R principle (reduce, reuse, recycle) becomes apparent in the 2010s through the SWM Act. Apart from particular technologies, the texts mention institutional arrangements (e.g., fines, privatization) for the management of solid waste.

To a lesser degree, waste is also framed as an **'environmental issue'** (or what Moore called 'hazard' in part) in the policy texts, particularly in the Environment Protection Act. If not managed properly, municipal solid waste is seen as polluting the environment. At the same time, the texts indicate that waste has the potential to become an **'economic resource'**, but this discourse is more prevalent in donor discourses (see below).

Generally, the waste discourses found in policy texts are influenced by global discourses of scientific waste management reflecting a technical-managerial approach. They have reached Nepal relatively late through donor programs, such as the GTZ-supported waste management project, which included the establishment of the above-mentioned Solid Waste Management and Resource Mobilization Centre, in the 1980s and early 1990s (cf. Upreti et al., 2020) or the JICA-supported project in the 2000s.

However, in more recent official documents produced by local governments, such as Lalitpur's SWM Handbook (LMC, 2019) or a report on lawsuits related to SWM in Kathmandu (KMC, n.d.), we also found statements such as 'dispute settlement', 'negotiation', 'compensation', 'rights of people'. These statements are linked to recent events and to an emerging framing of waste as a socio-political issue (see section 4.4), but also to the new Constitution of 2015 that is more oriented towards people's rights.

[13] https://www.fao.org/faolex/results/details/en/c/LEX-FAOC202860/

4.3. DONOR DOCUMENTS: WASTE AS A MANAGEABLE OBJECT AND AS A RESOURCE

We were not able to access project documents from GTZ (1978-1993), the Indian assistance in Kathmandu's waste sector of the 1990s or from JICA that planned waste project in the Kathmandu Valley in the 2000s. However, the study by Dangi et al. (2015) suggest that German and Japanese aid promoted scientific waste management in the Kathmandu Valley from generation and collection to recovery and disposal, thus seeing waste as a **'manageable object'**. While the planned JICA project emphasized the construction of a new sanitary landfill, the preceding GTZ project also tried to address the issues of 'public awareness' and 'resource mobilization'. For instance, when the Solid Waste Management and Resource Mobilization Centre was established in Kathmandu Valley in 1987, waste was increasingly treated as a resource for composting and the production of biogas.

Furthermore, the Asian Development Bank introduced the notion of 'resource recovery' in Nepal, thus strengthening the discourse of waste as an **'economic resource'** (ADB, 2013). This discourse has also been put forward by the several development organizations in the 2010s reporting on the Women Environment Protection Committee (WEPCO), which started to collect waste from households to produce biogas and compost in 1990. A UNDP brochure, for example, presents WEPCO's guiding principles to be that "'polluters must pay' and 'waste is resource'" (UNDP, 2017)[14]. SEED, a partnership of bilateral and multilateral donor agencies, depicts the project as "generating income from recycled household waste" apart from contributing to 'environmental conservation' (SEED, 2011).[15]

In the wake of the recent Covid-19 pandemic, furthermore, more attention seems to be given to biomedical waste management and to public health. For example, a recent GIZ document points to the urgency to manage healthcare waste. While most of the document reflects the discourse of (biomedical) waste as a 'manageable object' (e.g., "key elements are the systematic segregation of waste at source, the sterilisation of infectious items, and the safe disposal of hazardous waste") and a 'resource' ("Recycling also generates revenue for healthcare facilities, creates jobs, and promotes local economic growth"), it also contains a part on informal waste workers with whom 'occupational risks' and 'social stigma' are associated (GIZ, 2021, p. 9 & 16).[16] This points to an emerging discourse of waste as a **'stigmatizer'**.

In general, donor discourses on waste influencing Nepal are rooted in seeing waste as a 'manageable object' but they are also changing and evolving over time. In particular, the global trends to frame waste as a 'resource' and to promote the 3R principle have gained track in Nepal as well.

4.4. OFFICIALS: MULTIPLICATION OF WASTE DISCOURSES

In this subchapter, we reproduce mostly oral statements from officials at different levels, including politicians, bureaucrats and government engineers, made during interviews we conducted between 2019 and 2023. The officials' discourses are therefore more recent than the ones derived from official documents.

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[14] https://www.undp.org/publications/recycling-municipal-waste-through-biogas-production-and-composting

[15] https://seed.uno/articles/enterprise-briefs/enterprise-brief-women-environment-preservation-committee-wepco

[16] https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.giz.de/en/downloads/giz2020-en-no-time-to-waste-transforming-healthcare.pdf&ved=2ahUKEwjsy9DpyvGFAxUq-wIHHSStCNUQFnoECBUQAQ&usg=AOvVaw2Aixy_xjrKg7HiNjR7fRFG

We observed that bureaucrats often repeated the waste discourses present in the official documents analyzed in chapter 4.2. For example, they related in interviews to the waste as a **'manageable object'** discourse through statements on scientific waste management, such as 'waste management plans and strategies' (*fohormaila byabasthapan yojana ra rananiti*), 'hazardous waste management' (*hanikarak foharmaila byabasthapan*) and 'classification of waste' (*forharko bargikaran*), or on formal waste categories like 'organic and inorganic waste' (*prangrik ra aprangaric fohar).* Furthermore, site engineers and municipal officers and councilors reproduced scientific waste discourses by referring to specific steps in the waste chain, such as 'waste generation' *(fohormaila utpadan)* and to the 3R principles (e.g., reuse of waste' *(fohormailako pun prayo)*. Officials also referred to technologies and equipment along the waste chain, for example, 'waste fetching vehicles' (*phohormaila dhuwani garne sadhanharu),* 'waste processing plant' *(fohar prasodhan Kendra*) or 'development of landfill sites' (*fohormaila bisharjan sthalko bikas*). Waste management was often framed as a technical problem, such as the 'leachate problem' (*fohor bat niskane durgandit ledole pani pradushan ko samashya*), that needs to be addressed (e.g., quality control (*gun niyantran*), 'needing a long-term solution' (*dirghakalin samadhan ko khacho*), 'seeking a win-win solution' (*dubai pakshyale jitney samadhan khojnu parchha)*, including through institutional ways, such as the implementation of 'progressive service fees' (higher charges for the collection of non-segregated waste) or the 'cooperation with the private sector' (*niji kshetra sanga sakarya*). At the municipal level, statements also pointed to more localized forms of waste management (e.g., waste segregation (*fohormaila chhutyune)*, decentralization of waste management (*bikendrit forhar byabasthapan*), capacity development (kshemata *bikas*).

In line with this managerial-technological discourse, recent statements of government officials also reflected the waste as an **'economic resource'** narrative, but less in terms of recycling as in donor discourses, for example, but more in form of 'waste to energy' (*fohor bat urga) or* 'waste-to-energy technology' (*fohor bat urja banaune prabidhi).* Furthermore, it also appears that bureaucrats have recently used a stronger framing of waste as an **'environmental issue'** than the SWM Act of the early 2010s. Technocrats, in particular as engineers, made statements relating to pollution, such as 'the impact of solid waste on soil and water bodies' (*pani ra matoma nakaratmak prabhab*), 'water pollution by leachate', or 'spreading pollution' (*pardushan badhiraheko chha*). As part of improved waste management, 'environmental standards' (*batabaraniya star*) are demanded.

As indicated, many statements of officials echo the waste discourses in official documents. This may be because officials attempt to avoid any possible controversy or to take any risk of divergent interpretation because waste management has recently become politicized and often misinterpreted. As key actors of SWM, they often presented the issues very cautiously.

However, officials also made statements that reflected recent events more than governmental waste policies and approaches. During the Covid-19 pandemic, for example, 'separate management of hospital waste' was called for, still reflecting the discourse of waste as a 'manageable' object. The pandemic also coincided with underpinning political instability culminating in 2021 at the national level and in 2022 in a conflict, which is still ongoing, between the Kathmandu Municipal Corporation and the federal government. [17] In August 2022, the police had to escort waste trucks to the landfill and use force against local protesters. [18] In early February 2023, waste workers called a general strike reinforcing the waste crisis in the

[17] On 8.04.2023, Balen Shah (Mayor of KMC) listed 14 areas of non-cooperation from the federal government and announced that KMC would not pick up waste from Singhadarbar, the government's central administrative complex. https://english.onlinekhabar.com/balen-shah-singhadarbar-waste-tussle.html

[18] https://nepalnews.com/s/capital/balen-we-are-giving-honest-commitment-in-waste-management

Kathmandu Valley. [19] Overall, waste has become increasingly politicized and an arena for conflicts between different tiers of government and contestations between various actors, including municipalities, (informal) waste workers, waste generators and residents near the landfill.

While officials' statements on ways to solve the crisis continued to be linked to technical-managerial waste discourses (e.g., 'minimum waste generation', 'need for classification of waste', 'cleaning of waste carrier vehicles', 'carrying capacity of landfill site', 'alternate landfill site development', 'use of technology in SWM', 'establishment of waste processing plant', 'waste to energy', 'imposition of progressive service fees', 'environmental standards', 'better planning and monitoring', 'regulation'), they increasingly constructed a discourse of waste as a **'political issue'** (e.g., 'local disturbances' (*sthaniya abarosh*), 'local people putting forward huge demands' (*sthaniya janatale thula thula maag rakhe),* 'unrealistic demands' by local people, or even a 'violation of law') that should be met with either 'conflict management and negotiation' and 'agreements with local people', or the 'mobilization of police and administration' (*pulish prasashanko parichalan*) and 'punishment'.[20] Some other statements (e.g., the community did not have responsive behavior *(samudayale jimmewarpurna byabahar dekhaen)*, 'practicing burn and dump' *(balne ra gadhne garchhan)*, 'not in my backyard attitude') put the blame of the waste problem also on local people but framed it more as a **'social problem'**.

4.5. ACTIVISTS AND JOURNALISTS: WASTE AS A POLITICAL ISSUE AND A POLITICAL RESOURCE

Our interviews with social and environmental activists, as well as some studied articles by journalists, display different statements than those by officials. The discourses of this diverse group also referred to the 'politicization of waste' (*fohormaila rajnitikaran*) linked to recent events such as the general strike of waste workers in the Kathmandu Valley in February 2023 (see section 4.4). Activists and journalists observed that SWM now appeared in 'election manifestos' (*foharmaila in nirwachan ghoshana patra)* and became connected to the 'interests of political leaders' (*netako chakh ra swaarth*). Similar to the discourse of officials, the politicization of waste was framed as a **'political issue'** (e.g., 'waste as a source of conflict', 'federal-local government tussle' (*sangh ra sathaniya Sarkar bich jhagada*), 'SWM is worsening by political environment' (*rajnitik watawaranle forhar maila bybasthapan bigareko*), 'personal vested interests' (*niji swaarth)*. However, unlike officials, activists and journalists did not interpret the politicization of waste primarily as an issue of law and order, but as a space of bargaining *(saudabaji-moltol)* and negotiations *(samjhauta-sahamati*) between the government and local communities.

Moreover, activists and journalists framed solid waste management as a 'means of expanding zones of political influence' (*forharmaila byabasthapan rajnitik prabhab bistarko madhyam bayo*), a means of expressing 'opposition from local leaders' *(sthaniya netaharubaat birodh)* and a 'means of struggle' – waste as a tool of resistance was even used by the Mayor of Kathmandu. These statements amount to a construction of a discourse of waste as a **'political resource'**. Furthermore, problems of socioenvironmental injustices (see section 4.9) were recognized by this group, exemplified through the statement that waste has become a 'means for expressing frustration and dissatisfaction'.

[19] https://kathmandupost.com/national/2023/02/14/transport-workers-calls-off-strike-after-agreement-with-government

[20] See also https://nepalnews.com/s/capital/balen-we-are-giving-honest-commitment-in-waste-management

Furthermore, frequent phrases from activists and journalists included 'class concerns' (bargiya sarokar), 'waste as poor people's work' (fohormaila sambandhi kaap garib manisko ho bhanne soch), or 'perceptions of waste workers as dirty people' (foharmailama kam garne manis fohori hunch bhanne soch). These statements point to a discourse of waste as a **'stigmatizer'**. To counterbalance this, some interviewees wished for the 'inclusion of informal workers in municipal systems' (*nagarpalikale dine subidhama anaupacharik foharmaila maujdur laaii pani samabeh garnu paryo).*

Finally, the discourse of waste as an **'economic resource'** has also reached this actor group that referred to 'money from waste', 'employment from waste' or the 'circular economy'. Yet, this discourse was less predominant among activists than among private-sector actors (see below)

4.6. WASTE ENTREPRENEURS: WASTE AS AN ECONOMIC RESOURCE

Unsurprisingly, the discourse of waste as an **'economic resource'** was the most prevalent one among waste entrepreneurs and managers and staff from waste collection and management companies in the Kathmandu Valley. The most commonly heard slogan during interviews and project workshops was *fohar bat mohar* ('money from waste'); some also used the English equivalent 'cash from trash'. Further statements (shared with other actors) included 'revenue from waste' *(fohar bat rajashwo)* or, less specifically, 'benefits from waste' (*fohar bat faida line)*; 'employment from waste' (*fohormaila bata rojgari*); but also 'circular economy' (*chakriya artha tantra*) and 'green economy (*harit arthatantra)*.

Owners, managers and staff of private waste companies were generally concerned about the economic aspects of solid waste management. Expressions such as 'expensive operation' (*kharchilo sanchalan*), need to increase investment (*lagani badhaun abasek*) or economic loss (*arthik ghata*) indicate that profits from waste cannot be guaranteed; remedy is sought through investment from state (*rajya ko lagani*) and changes in user fees (local contribution *(sthaniya ko yogdan)*, 'progressive service fees' *(pragatishil sewas sulka*).

4.7. INFORMAL WASTE WORKERS: WASTE AS A HEALTH HAZARD AND STIGMATIZER

In this section, we draw from interviews with informal waste workers, members for the SaSaJa Women's Cooperative in Kathmandu as well as scavengers on the landfill in Sisdol. While waste represents a livelihood resource for this group, their statements pointed to economic insecurity in this sector (e.g., 'we have difficulty for livelihoods' *(hamilai jibikoparjan garnai kathinaii chha); 'livelihoods insecurity' (jibikoparjan asurkshya)*) and particularly to personal health risks, as the follow citation from a focus group discussion with the above-mentioned cooperative indicates.

> *There is a high risk of transmission of disease from the contamination with waste. While working in waste, we are suffering from itching, headache from the bad smell.*[21]

In other conversations with informal waste workers we heard statements , such as 'we have health and security risks' *(hamilai swasth ra surakshaya jokhim chha)*, 'falling ill while collecting waste' *(fohar uthuda uthaudai birami huinchha)*, 'facing wounds and health hazards' *(ghau hunchha, swasth ma dherai samashya hunchha).* The emerging discourse is similar to the framing of waste as an environmental issue and an issue of socio-environmental justice, but

[21] Focus group discussion with members of SaSaJa Women's Cooperative.

more focused on seeing waste as a **health hazard**, to be dealt with a 'health insurance' or monetary 'compensation' by the state for waste workers. This hazard is reinforced through the neglect or carelessness of other actors. In one instance, waste pickers died because trucks poured waste without checking on people picking waste on the landfill. Thus, waste work is seen as a 'risk to life from waste slide' *(fohar ko pahirole hamro jyan jane khatara huncha).*

Waste workers experienced augmented health hazards during Covid-19 as reflected in statements, such as 'we are not getting appropriate safety gears' (*hamile surhakshyaka sahi saman paeka chhainau*) or 'getting inappropriate protective gears during COVID time' (*Covid ko samayama diieka surakshya samagri anupyukta*). Generally, they point out the difficult working conditions and lack of facilities: 'no place to shower after work' (*kaam sakiepachhi nuhanune thau chhaina*), waste work 'creates difficulties but not any facilities' *(dukkha dinchh, kehi subidha didaina)*. The problems of female waste workers were highlighted in particular: 'more problem for female informal waste workers' *(mahila ka samashya dherai chhan) or* 'no facilities for breast feeding' *(bachhalaii dud khuwane thaau cko subidha chain)*. In conclusion, the infrastructure at transfer stations or landfills was characterized 'gender blind' (mahilaka laingik sawal ko bewasta).

Beyond neglect, informal waste workers also experience discriminatory behaviors from other actors, as the following statements illustrate: 'they show rude behavior' *(uniharu bamiprati naramro byabahar garchhan, hepchhan)*, 'truck drivers are rude' *(fohar lyaune driverharu dusta chhan)*,). Interviewees also understand that the discrimination is linked to their work (e.g., 'our work is understood as dirty and low status work' *(hamro kamlaii fohari ra tallno starako kam baher bjhinchha)*, 'we face waste-based discrimination' *(hamimathi foharko namma bibhed chha)* pointing to a discourse of waste as a **stigmatizer**. This discourse is also linked to a feeling of socio-political injustice (e.g., 'we do not get legal protection' *(hamilai kanuni samrakshyan chain)*, 'they do not hear our voice' *(uniharu hamro kura sundi sundainan)*, 'municipality officials do not listen to our problems' *(nagarpalikaka hakimharu hamro samashya nai sunidain),* 'we face restriction on municipality waste in some areas' *(hamilaii nagarpalikako kehi thaumaa fohar uthun rok chha),* 'no recognition' *(pahichan chaina)*; 'no formal recognition and space for voice' (*aupacharik tarikale pahichan nadine, bolne thau nadine*).

Most of the interviewed informal waste workers are frustrated with the non-responsive behavior of the municipality and the government, explained by unequal power relations ('they are monopolizing their power' (*uniharu afno saktiko manapari upayog garchhn*). Waste workers are aware that this is a **political issue**. Some of them are organized in a cooperative through which they can raise a collective voice: 'once we are organized, we are also getting some recognition, though it is not up to the expectation' (*hami sangathit bhae pachhi purai nabhae pani aliali pahichan bandai chha*) and we gained in 'social prestige' (*samajik pratishtha)*. NGOs and some private companies have also started inviting informal waste workers, for instance those organized in the SaSaJa Cooperative, in waste-related discussions *(samajik sang santhale hamilaii foharmahila sambandhi chhalfalma bolaun thaleka chhan)* and raised the prospect of a health insurance for them.

In general, the social security, safety and health of waste workers was one of most ignored issues in SWM in Nepal (Black et.al. (2018). Our cross-sectional study conducted in the Kathmandu Valley confirms the finding of weak access of informal waste works to healthcare services. However, we found that the plight of waste workers has been put on the political agenda more recently, for example during the local elections of 2022, perhaps also due to the experience during Covid-19, when waste collection was defined as an essential service (Tamang et al., 2022; Acharya et al., 2021).

4.8. HOUSEHOLD WASTE GENERATORS: WASTE AS SOMEONE ELSE'S RESPONSIBILITY

Ordinary people, or household waste generators, often framed waste as **someone else's problem and responsibility** (except for residents in peri-urban areas, including indigenous communities, who use waste as a resource for manure in their kitchen gardens or use it for fertilizing crops). This became apparent through statements such as 'waste management is not our concern' *(yo forharmaila bybasthapan hamro sarokar hoina)* or 'this task has to be done by the municipality as it is the responsibility of the *government' (yo forhar byabasthapanako kam nagarpalikale garnu parchha kina ki yo sarakarko kaam ho)*. Waste is not seen as an issue because 'most of waste is taken by waste *pickers' (sabai jaso fohormaila forhar uthaune manisle lanchhan)* or 'so many waste pickers visit nowadays to collect waste' *(achel phohor lane thari thari manis aauchan)*. These statements also reflect an 'out of sight, out of mind' mentality (Fernando and De Silva, 2021).

Furthermore, ordinary residents blame the municipality and especially waste workers for deficiencies in SWM (e.g., 'the municipality does not care about our waste' *(nagrpalikale hamilaii foharmail sambandi wasta gardain),* 'they only collect taxes but do not collect waste on time' *(uniharu paisa matra uthauchh tara samayama fohor laijaadaina)*, 'waste workers do not perform their job properly' *(forhar linaaune haru ramrod sanga uthaudain, hatar garchha),* 'rag pickers *(fohar uthaune manis)* and cycle hawkers *(purana saman kinne manis)* take only good wastes, not all' *(khali ramra saman matrai laijanchha, sabi ladain)*. Therefore, waste becomes an issue for ordinary residents only when the municipality and waste workers are not taking – what is seen as their – responsibility (e.g., 'we face difficulty when the waste was not collected for long' *(lamo samaya fohormaila nauthauda chai apthyaro hunchha)*.

The problem of the municipality not taking responsibility for waste arose particularly during and after recent events, such as the 2015 earthquake, the Covid-19 pandemic and the waste worker strike in early 2023. Ordinary residents are aware of the fragility of the SWM system in the Kathmandu Valley (e.g., 'waste workers do not come to collect waste at the time of general strikes' (*hadtal band bhako bela maatra fohormaila uthaune aaudiann)*). Some of them also pointed out the low level of their waste generation ('little production of waste' *(fohor teti aaudain),* 'not much waste is generated in our house and in this hamlet' (*haamro ghar-tol tira teti fohar nai hudain)*, 'decomposable waste is used at home' *(kuhine jati gharmai prayog hunchha)*) reinforcing the narrative that they are not responsible for the waste (problem).

4.9. WASTE-AFFECTED COMMUNITIES: WASTE AS AN ISSUE OF SOCIOENVIRONMENTAL JUSTICE

Interview respondents from communities affected by waste, including communities living near the landfill site and near waste transport roads, refer to waste as an environmental issue through statements, such as 'huge problem of pollution' (*pradushanko thulo samashya chha*) or 'animals and birds are dying from pollution' (*pradushan baat pashupanchhi mare*). They link environmental pollution to their own living situation through remarks that waste is 'spreading a foul smell in this area' (*yo kshetrama durghada failieko chha*) or 'birds are taking waste to our roofs and yards' (*charaharule fohormaila hamro chhanama ra anganma khasalchhan*). Waste affected communities also claimed that different types of diseases were spread in their villages from the unmanaged landfill sites as well as the poor management of the transportation of waste. They highlighted that many people of landfill areas were suffering from cancer, kidney and skin diseases and that many elderly, pregnant women and children were more affected and suffering from health-related problems because of the pollution from the waste. For example, an angry respondent told us:

> *Once they started disposing waste in the new landfill site in Bancharedanda, they just left the mountain of waste in Sisdole [the older, unmanaged landfill site]. Hence, we were asking them to properly manage that saturated landfill site, before leaving, in order to avoid any future risks. There is continuous spread of strong bad smell, and it is rather worse during the time of rainfall and hot weather. Flies are even spreading in winter and worse in summer and the rainy season.*[22]

Furthermore, a participant in a focus group interview stated:

> *We were worried when technicians warned us about the high risk of a possible burst of the Sisdole [landfill] site as methane gas is accumulating inside the heap/mountain of waste. In the rainy season, there is a high flow of leachate. We had requested them* to provide health insurance. *They did not provide it to actually affected populations. We are suffering from different diseases and have to go to Kathmandu for treatment. We are suffering from injustice.* [23]

These statements construct a discourse that goes beyond seeing waste as an environmental issue, hazard, or public health risk to framing waste also as an **issue of socioenvironmental (in)justice**. Residents explicitly referred to 'justice' *(nyaya)* and 'local rights' (*sthaniya adhikar*) when discussing the situation related to the landfill site. In this discourse, 'proper waste management' or 'segregation' (*chhutyaune*) were referred to mainly as means to reduce injustices and 'adverse effects', and statements such as 'prior informed consent', 'inclusion of people of affected areas in the decision process' or 'measures for reducing adverse effects' demonstrate the aspiration to solve the socioenvironmental injustice through political (participatory) means as well.

Responding to the felt injustice and in order to improve the situation in their area, people living near the landfill sites repeatedly organized protests against the existing practices of waste management. Therefore, waste was increasingly framed as a **political issue** as witnessed by statements such as conflict (*bibad*), 'dispute resolution', 'mediation', negotiation (*samjhauta-sahamati*) or agreement (*samjhauta*).

Furthermore, the quote below from a local key informant shows that the political claim for justice goes beyond the protection from environmental pollution to include a right to social development of the community:

> *We had negotiations with Kathmandu [the waste management authority] before accepting to use our area as a landfill site with the condition that they will develop infrastructure like roads, health offices, school's improvement and improving the wellbeing of our community.*[24]

However, the authorities did not properly respond to local protests, although the mayor of Kathmandu visited the landfill area in the rainy season with his technical team and he committed

[22] Interview on 29 May 2023 at Sisdole, Kakani Rural Municipality (previously Okharpauwa Village Development Committee) of Nuwakot district.

[23] FGD in Bancharedanda on 30 May 2023

[24] KII in Bancharedanda on 29 May 2023

to manage waste more effectively, promising to reduce waste at source. However, according to participants of a focus group discussion[25], no action was taken to reduce waste coming to their area. Promises were seen as misleading; they created confusion and suspicion. Many inhabitants were not clear about the rules around SWM as the government would 'promulgate different rules that we do not know' (*ke ke niyam layuchhan thahai hudain)*. According to them, the mayor did not take their request to allocate resources for the management of the Sisdole site seriously. Misleading promises were already made in the past, for example, to close the Sisdole landfill after three years (while it operated for 20 years).

The statement of another local activist indicates that the lack of government response is seen as unjust, thus reinforcing the discourse of waste as an issue of social justice.

> *The SWM authorities in Kathmandu made several promises but none of these promises were honestly fulfilled. The government failed to fulfill its promise to construct 20 bed hospitals in our areas. We are not saying that we did not allow to dispose waste in Bancharedanda. Only we are emphasizing to manage waste properly so we should not suffer. We are asking to fulfill their promises. We had raised this concern several times to the previous mayor of the KMC. The government officials did not listen. After the local election last year [in 2022], we also met the newly elected mayor 3-4 times so far and he also visited the landfill site. He himself had publicly acknowledged the weaknesses of KMC and promised to address them. We had great expectation from him but so far, he has not fulfilled his promises"[26].*

[25] FDG on 29 May 2023 at Sisdole.

[26] Reported by Subash Shrestha on Thursday 12 Magh 2079 (26 Jan 2023) on ratopati online news portal

5. DISCUSSION

In the previous section, we identified some major discourses identified from our analysis of interviews and texts. The list of discourses is, of course, not exhaustive, and some discourses are also linked to each other. Nevertheless, we have attempted to plot the most important discourses on the analytical matrix developed in section 3 (Figure 2). In the following, we will discuss each discourse with reference to the case of Nepal (and to Moore's (2012) typology wherever possible). The section is divided in technical-managerial and socio-political discourses.

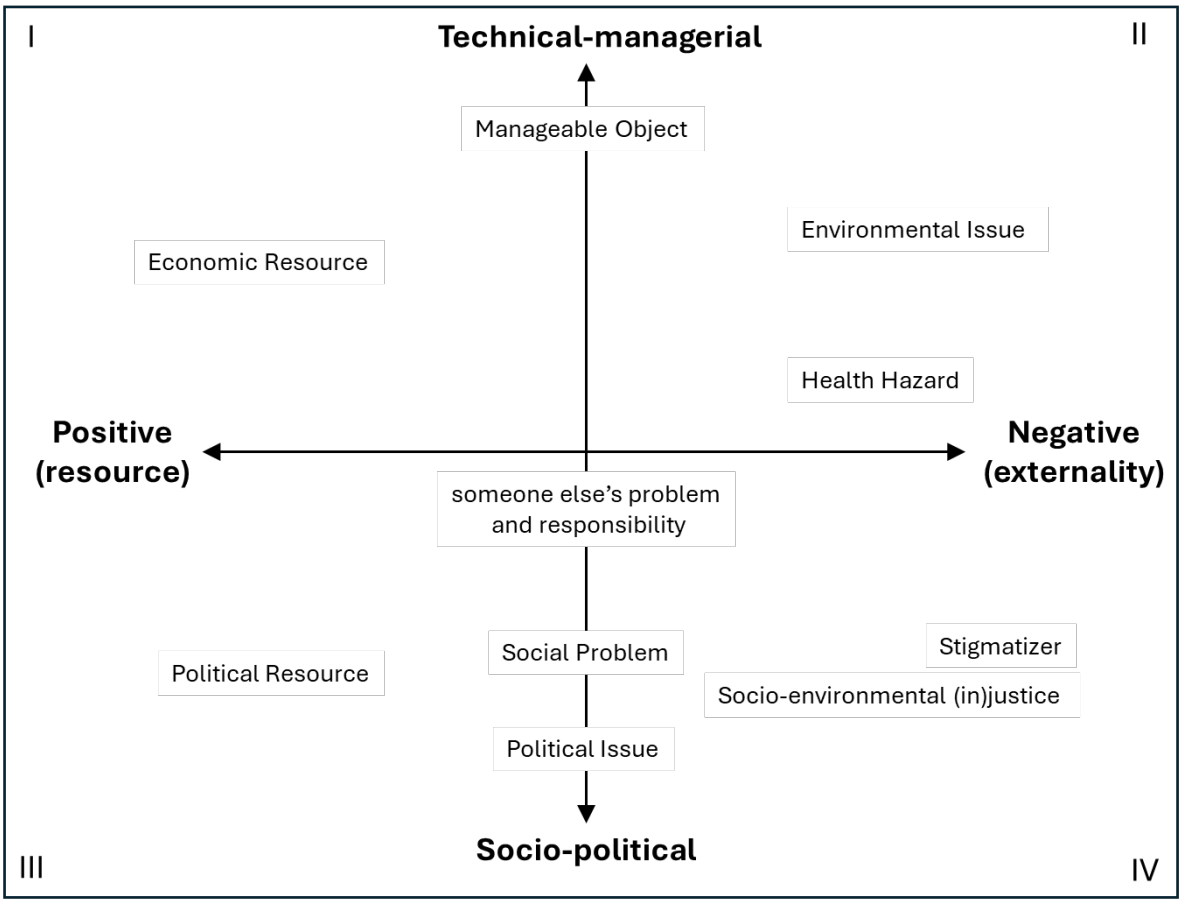

Figure 2: Categorization of waste-related discourses in Nepal

5.1. TECHNICAL-MATERIAL WASTE DISCOURSES

Technical-material waste discourses frame the waste problem, including its solution, in technological, institutional, ecological and financial terms. In our study, we distinguish between the technical-material discourses of waste as a manageable object, an economic resource, an environmental issue, and a health hazard.

Waste as a manageable object represents the dominant discourse in Nepal. It is predominant in policy, legal and donor documents and in discourses of officials, but also heard from entrepreneurs, NGOs, waste-affected communities, etc. This discourse is related to scientific waste management that has been promoted in Nepal since the 1990s. This comprehensive discourse builds on the assumption that the waste problem is solvable through appropriate infrastructure and technologies (e.g., trucks, roads, sanitary landfills), monitoring and coercion

(e.g., law enforcement and punishment), management and incentive structures (e.g., progressive user fees), adherence to principles (e.g., the 3R principle of waste reduction, reuse and recycling), behaviors (e.g., segregation at source), etc. Moore (2012) uses the same category for this view stressing the management of waste through technology and institutional design.

The discourse of waste as a manageable object is compatible with those of waste as an economic resource, an environmental problem and a health hazard. However, it is difficult to associate it with either Quadrant I or Quadrant II, because the focus is simply on the object to be managed and not on its positive effects or negative externalities. With the gradual privatization of waste management in the Kathmandu Valley, however, there is a trend towards seeing waste an economic resource and towards applying the polluter-pays principle.

Quadrant I contains discourses that frame waste as a solvable technical-managerial issue for which the use of waste as a resource represents a solution and whereby the solution creates positive externalities. In the case of Nepal, we found the discourse of waste as an economic resource to fall into this category.

Waste as an economic resource (what Moore (2012) called waste as resource) discourse seems to have entered Nepal as a discourse of donors but it has increasingly entered policy documents as well as statements of officials since the 2010s. It is put forward mainly by waste entrepreneurs and informal waste workers who find economic value in recyclable materials. Entrepreneurs largely draw a positive win-win picture (e.g., 'trash is cash'), but also underline that profits from this economic resource are not guaranteed. Informal waste workers point to the livelihood insecurities in the sector. In recent official discourses, the use of waste to generate energy for SWM cost recovery has been highlighted, apart from the economic benefits from recycling.

Quadrant II encompasses discourses that still see waste primarily as a technical-managerial issue, but that highlight negative externalities rather than positive effects of waste. In the case of Nepal, negative externalities on the environment and on human health have been emphasized. Accordingly, we distinguish between the framing of waste as an environmental issue and as a health hazard – unlike Moore (2012) who only refers to 'hazard' with a focus on human health in combination with injustices (for which we identified a separate discourse, see below).

Waste as an environmental issue is a framing to be found in official documents, particularly in the Environmental Protection Act, but also in discourses of officials, particularly technocrats such as engineers. Waste is seen as polluting water and soils, but the connections between improper waste management and climate change have not come out in our discourse analysis.[27] The solution to the waste problem is found in better technologies, regulation through standards, and the monitoring and enforcement of laws (in line with the idea of waste as a manageable object, see above). Waste-affected communities evidently observed environmental pollution, too, but they linked it more closely to produced health hazards as well as to socioenvironmental justice (see below) for which technical-managerial remedies would not be sufficient.

Waste as a health hazard is a discourse put forward mostly by informal waste workers and waste-affected communities although it is also present in general framings of policy documents. Waste-affected communities and informal waste workers are most directly exposed to waste, and many of them suffer from its effects on their health (Karki et al., 2022). Interestingly, however, waste workers saw managerial-institutional solutions to the waste-induced health problem, such as the creation of health insurance for waste workers or monetary compensation for those falling ill. In

[27] Improper waste dumping releases methane, a poweful greenhouse gas.

contrast, waste-affected communities linked health hazards more to socio-political issues (see below). In general, the framing of waste as a health hazard was reinforced during the Covid-19 period, when biomedical waste was accumulating.

5.2. SOCIO-POLITICAL WASTE DISCOURSES

Socio-political waste discourses see waste primarily as a social and political problem that cannot be solved exclusively through 'scientific waste management'. We identified socio-political discourses of waste as someone else's responsibility, a social problem, a political issue, a political resource, a stigmatizer and socioenvironmental justice issue. Amongst these, the discourses of waste as a social problem, a political issue and as somebody else's responsibility could not be easily put in Quadrant III or IV because they make no or only little reference to the positive effects or to the negative externalities of waste.

Waste as someone else's problem and responsibility represents a discourse reflecting a general detachment from the waste issue. This discourse has a (weak) socio-political dimension, because the municipality or government is seen as responsible for the collection of waste. Waste comes to mind only when waste collection fails, for example, during crises. This waste discourse is predominant among ordinary residents in Kathmandu.

Waste as a social problem is a relatively minor discourse of officials linked to general indifference of household-level waste generators (see above) but it points more specifically to improper waste disposal. This discourse has some relations to the conceptualization of waste as 'matter out of place' that can challenge social order (Douglas, 2004, cited in Moore, 2012). Solutions to inappropriate waste practices are the enforcement of laws, fines and awareness-raising campaigns for behavioral change.

Waste as a political issue has recently become an important discourse put forward by officials, activists, residents near landfills and waste workers alike. The emergence of this discourse is linked to the politicization of waste since the early 2020s. An intensified waste crisis in the Kathmandu Valley (that is itself related to other crises, such as Nepal's political crisis and the Covid-19 pandemic) led to open conflicts between waste-affected communities, waste workers and different tiers of government. Compared to the discourse of waste as a social problem, it is here not so much that waste itself represents a challenge to the social order but its politicization. Rather than better management, this discourse generally highlights the importance of negotiations and agreements between stakeholders for the solution to the waste and waste worker problem (and the related socioenvironmental and spatial injustices, see below).

Quadrant III contains discourses that frame waste primarily as a socio-political issue whereby waste brings social and political benefits, at least to some actors.

Waste as a political resource is a discourse, mostly of activists and journalists, that goes a step further than the framing of waste as a political issue. Here, waste is not only politicized but it becomes an instrument of power, particularly for waste-affected communities and waste workers but also for opposition groups and even local governments. This discourse shows some similarities with Moore's (2012) concept of 'waste as a governable object' through which "careful attention is brought to the way that waste became a distinct object for state management and means of controlling certain populations…" (Moore, 2012: 790). The discourses in the Kathmandu Valley that we identified, however, did not frame waste as an object of state management through which state power is generated, but rather as a material that (thanks to its visceral qualities) can give voice and power to generally less powerful groups. In this way, this discourse is also linked to Moore's conceptualization of 'waste as filth' that "has the ability to move people to act" (Moore, 2012: 789), yet it is also seen as the instrument through with people can move the state to act.

Quadrant IV encompasses discourses that still see waste primarily as a socio-political issue, but that highlight negative externalities of waste and its interaction with power and social relations.

Waste as a stigmatizer represents a discourse showing the negative social consequences of having to be close to waste (in contrast to waste's empowering potential as a political resource). The stigma attached to waste work as dirty translates into discriminatory behaviors towards waste workers. Social stigma can also be attached to people living near landfills. The stigmatizing waste discourse was elevated during the Covid-19 pandemic when waste workers were associated with the spread of the disease. Interestingly, the discourse of stigma was framed by waste workers and activists in terms of social class rather than in terms of caste or community, even though (informal) waste work has a caste/community dimension in Nepal. Furthermore, waste workers linked their discrimination to political injustice (lack of voice, lack of recognition). This points to processes of social exclusion that reverberate with Moore's (2012) conceptualization of waste objects, places and people as 'abject'.

Waste as socioenvironmental (in)justice is the key discourse among waste-affected communities in the Kathmandu Valley. While Moore (2012) refers to environmental justice only as part of the hazard discourse, residents near the landfills explicitly link the pollution of their immediate environment and related health risks to questions about their rights. They frame injustice in a holistic manner to include social and political marginalization and demand a cleaner environment, improved social services and a political voice. Interestingly, other stakeholder groups interviews, such as journalists or officials, did not echo the waste-affected communities' socioenvironmental justice discourse.

5.3. TRENDS AND DISCURSIVE SHIFTS

The waste discourses identified in the Kathmandu Valley are both very diverse and dynamic. Many discourses can be explained from the actor's ethnic, cultural, and gender background (Vineeshiya and Mahees, 2019) and from their economic position and interests, such as the framing of waste as an economic resource by entrepreneurs or as an issue of socioenvironmental justice by waste-affected communities. Some discourses are also very context-and time-bound; for example, informal waste workers' right to health services were more prominent during the time of elections).

However, we also note a general trend from technological-managerial waste discourses to the framing of waste problems in the Kathmandu Valley as a socio-political issue. While the established technological-managerial waste discourses, particularly the understanding of waste as a manageable object, remain dominant and are inscribed in laws and policies, a wide range of socio-political waste discourses have emerged recently – partly echoing the narratives of social justice and people's empowerment that arose during Nepal's profound political changes in the 2000s.

This general trend towards socio-political waste discourses in the Kathmandu Vally seems to be linked to specific and partly overlapping crises, such as the Covid-19 pandemic and national political crisis starting in 2020, which manifested themselves in local events, including garbage strikes, protests near landfills and standoffs between local governments and the federal government. Previous crises, such as the 2015 earthquake and Indian blockade, which brought about a stronger private waste sector consisting of numerous small local enterprises, strengthened the discourse of waste as an economic resource. These and other crises, at least momentarily, led to changed waste practices and operational plans as a response that have become reflected in waste discourses. Whether these crisis-driven waste discourses will

become dominant and reflected in laws and policy documents, thus leading to a 'discursive shift'[28], remains to be seen.

Apart from crises, the identified waste narratives in the Kathmandu Valley, particularly the official ones, have since the implementation of the GTZ-funded solid waste management project in 1981 follow long-term international trends in waste discourses. The international trends in scientific waste management towards the adoption of the 3R principle and (economic) resource recovery[29], for example, are reflected in Nepal's laws and policy documents.

The dominance of certain discourses over time depends upon their ontological gravity, the internalization by key actors and the context. Hence, discourses are changing over time, they are refined and reconstructed through recursive processes.

[28] Davoudi (2000) shows how waste-related discourses have changed in the UK and identifies discourse shifts between waste reduction and waste disposal.

[29] The 'waste-to-energy' narrative to promote waste incineration, however, is not prevalent in Nepal.

6. CONCLUSIONS

For this discourse analysis, Moore's (2012) framework of waste conceptualizations proved useful as a heuristic tool and a general roadmap for classification. The mapping of discourses along two axes allowed for the identification of general trends and potential discursive shifts. However, the discourses empirically emerging from Nepal only partly matched Moore's categories derived from academic papers. While some discourse categories were congruent (e.g., waste as a manageable object), other discourses had to be detailed (for example, Moore's waste as hazard needed to be divided into waste as an environmental issue, health hazard and socioenvironmental justice in order to capture the Nepali realities). Still other academic waste conceptualizations did not find their equivalent in waste discourses in Nepal.

Our analysis has shown that discourse formation is not a linear process. Discourses are outcomes of social constructions and reconstructions, influenced by the specific context and socio-political dynamics. Waste discourses and practices also stand in a dialectical relationship, shaping one another. Furthermore, the analysis of waste discourses, particularly when linked to actors, unveils power struggles over meanings and the framing of the waste problem. While dominant waste discourses in Nepal have shaped practice, it remains to be seen whether the recently emerging socio-political waste discourses can influence waste practices and have an imprint on policy that could lead to more socioenvironmental justice. Yet, there are indications that the recent positive progressive waste discourses have started to promote cooperation, collaboration, innovation, support and complementarity in successfully managing solid waste in the Kathmandu Valley (Upreti, 2024).

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