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‘Show me the Evidence’: Mobilisation, Citizenship and Risk in Indian Asbestos Issues

Linda Waldman
July 2009

Citizenship DRC

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Institute of Development Studies at the University of Sussex Brighton BN1 9RE UK

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Summary

This paper examines asbestos issues, mobilisation and citizenship in India. It shows how asbestos has been considered as a tool for Indian economic growth and modernisation and explores the scientific debates around its ‘safe’ use. In seeking to locate experiences of citizenship within a globalised context, this research has focused on anti-asbestos mobilisation and protest in cosmopolitan cities as well as more decentralised contexts. It argues that the state’s narrow definition of asbestos diseases enables it to officially document the lack of asbestos diseases experienced by Indian workers. This process, which defines sufferers as politically invisible and inconsequential, accompanied by the 30 year delay between exposure and the onset of disease, hinders anti-asbestos organisations as there is no constituency to be mobilised. Parallel (and partially interrelated) grassroots asbestos movements which are more worker-orientated are, however, marginalised from the transnational protests. The paper argues that mobilisation around identity issues thus creates different contexts in India, in which activists are simultaneously both intimately connected and enormously distant to different aspects of the mobilisation process. In addition, while geographic and political differences are compressed through transnational mobilisation; class, regional and educational differences are expanded.

Keywords: asbestos; mobilisation; citizenship; anti-asbestos mobilisation; India; asbestos diseases.

Linda Waldman is a Social Anthropologist with experience in African poverty and the related issues of gender, racial classification, ethnicity and identity. She obtained her PhD at the University of the Witwatersrand, South Africa, where her research focused on indigenous identity and nationalism amongst the Griqua of South Africa. She has worked as a research consultant on farm workers and gender-related issues. She joined the Institute of Development Studies as a Fellow in the Knowledge, Technology and Science (KNOTS) Team in 2004. Her recent research activities include an examination of how environmental issues are integrated into Poverty Reduction Strategy Statements and a comparative study of asbestos-related disease and its legal, medical and socio-cultural dimensions in South Africa, the United Kingdom and India.

Acronyms

AIC	Asbestos Information Centre
BANI	An Asbestos Network India
DGFASLI	Directorate General, Factory Advice Service and Labour Institute
ESI	Employees State Insurance
ESIC	Employees' State Insurance Corporation
IBAS	International Ban Asbestos Secretariat
ILO	International Labour Office
IPCS	International Programme on Chemical Safety
NCDRLD	National Campaign on Dust-Related Lung Diseases
NIOH	National Institute of Occupational Health
NIOSH	National Institute for Occupational Safety and Health
PIC	Prior Informed Consent
PIL	Public Interest Litigation
UNEP	United Nations Environment Program
WHA	World Health Assembly
WHO	World Health Organisation

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Local Global Working Group preface

Working paper series on Citizen Engagements in a Globalising World

Around the world, globalisation, changes in governance and emerging transnational social movements are creating new spaces and opportunities for citizen engagement. Indeed, some would argue that citizenship itself is being de-linked from territorial boundaries, as power is becoming more multi-layered and multi-scaled, and governance increasingly involves both state and non-state actors, which often are transnational.

One of the research programmes of the Development Research Centre on Citizenship, Participation and Accountability, the Working Group on Citizen Engagements in a Globalising World explores the significance of these changes to poor and disenfranchised citizens. In particular, the group's work explores how the diffusion of power and governance resulting from globalisation gives rise to new meanings and identities of citizenship and new forms and formations of citizen action. The research programme is asking questions across local-national-regional scales related to

- The dynamics of mobilisation, paying particular attention to new forms and tensions of alliance-building and claim-making;
- The politics of intermediation around representation, legitimacy, accountability;
- The politics of knowledge around framing issues, the power to frame, dynamics of contestation across forms of expertise and ways of knowing; and
- The dynamics and processes of inclusion and exclusion to examine who gains and who loses.

The group's work is a unique contribution to a vast literature on transnational citizen action in the way in which each project examines the vertical links from the local to the global from a citizen's perspective, looking up and out from the site of everyday struggles. And while much normative and conceptual literature examines the concept of global citizenship, few studies of the theme are actually grounded in empirical study of concrete cases that illustrate how global reconfigurations of power affect citizens' own perceptions of their rights and how to claim them.

The group is made up of 15 researchers carrying out field projects in India, South Africa, Nigeria, Philippines, Kenya, The Gambia, Brazil and South Africa, as well as other cross-national projects in Latin America and Africa. The projects examine new forms of citizen engagement across a number of sectors, including the environment, trade, eduation, livelihoods, health and HIV/AIDS work and occupational disease, agriculture and land – and across different types of engagement, ranging from transnational campaigns and social movements, to participation of citizens in new institutionally designed fora.

The working papers in this series on Citizen Engagements in a Globalising World will be available on the Citizenship DRC website www.drc-citizenship.org, as they are completed. The Citizenship DRC is funded by the UK's Department for International Development.

1 Introduction

Clever Bhola calls off a strike

> Bhola was a farmer whose cows decided to go on strike one day, complaining that their grass was not fresh enough. They were soon joined by the hens who wished for a good coop and a rose garden to peck in. All the animals refused to listen to Bhola's protests that he did not have enough money to meet their demands. Then Bhola had an idea and he announced to his animals that he too was going on strike. The animals realised that, if Bhola was on strike, they would not be fed. They immediately ended the strike and asked for forgiveness. 'And so, clever Bhola outwitted his animals.
>
> (Magic Pot – a child's cartoon book – 16–31 March 2007)

> We have a growing middle class, reared on a diet of radical consumerism and aggressive greed. Unlike industrialising Western countries, which had colonies from which to plunder resources and generate slave labour to feed this process, we have to colonise ourselves, our own nether regions. We've begun to eat our own limbs.
>
> (Arundhati Roy 2007: 10)

This paper explores citizens' actions in relation to global economic processes and global rights to health. It argues that global rights to health are mediated down through the national political context to citizens, but also that these rights are mediated back up from citizens to the global level. Acting as citizens and mobilising for certain rights requires a sense of agency. Through mobilisation and participation, people can shape their citizenship by claiming new rights, demanding accountability from the state – or suprastate organisations – and by limiting state dominance (Mohanty and Tandon 2005). Grassroots struggle also involves people connecting and realising the widespread nature of a problem. Citizenship is thus about making connections with other activists experiencing similar problems or interested in similar issues, it is about self-identity and social recognition.[1] Accordingly, how people conceive of themselves, how they are conceived of by others and who they relate to affects their mobilisation struggle and their ability to act as citizens (Kabeer 2002). As Appadurai has argued, the transnational organising potential of social movements is linked to 'their capacity to recognize and identify each other, across numerous boundaries of language, history, strategy, and location' (2006: xi). Paradoxically the nature of people's mobilisation strategies will, in turn, also affect their identities.

1 Identity is conceived here as a multifaceted phenomenon which affects how people think about themselves as individuals, about themselves in relation to other people, and how they conceptualise their collective identities. Identity therefore exists on several levels and has numerous – sometimes competing – components which include bodily identity, personal identity, community identity (with possible sub-identities) and national identities (Cohen 1994; Moore 1993).

Mobilisation for citizenship rights involves certain contradictions. It stems out of, but in turns shapes, people's identities. It operates, as Heater has argued 'both vertically and horizontally' (2002: 5), as actors establish 'vertical' political relationships with nation-states and with global regimes, while also developing 'horizontal' social networks with other individuals and actors. These forms of collective struggle are often necessary to achieve individual rights (Fox 2005). Globalisation enhances these contradictions by adding layers of complexity: 'world' citizenship addresses environmental and other socio-political problems by directing struggles towards an 'ultimate' global level of rights. This is possible because, as Held and McGrew argue, 'Political decisions and actions in one part of the world can rapidly acquire worldwide ramifications. Sites of political action and/or decision-making can become linked through rapid communication into complex networks of political interaction' (2002: 5). The disconnection between place, social situation and politics is thus a contradiction inherent in citizenship mobilisation. In addition, and linked to this disconnection, is the porosity of national boundaries. Globalisation has meant that national communities cannot make exclusive decisions and policies for national citizens. Rather, the 'pursuit of effective government and the accountability of political power is no longer coterminous with a limited national territory' (Held and McGrew 2002: 7). National government is, in effect, sandwiched between supra-state organisations such as the UN, regional organisations, transnational civil society and corporate business, local or city government, NGOs and communities. Multi-facetted and intricate networks of governance are set up which involve state, suprastate, substate and private sector actors, yet extend well beyond the state (Scholte 2000). These contradictions raise questions about how mobilisation happens and who struggle should be directed towards (Batliwala and Brown 2006)?

This paper explores these questions of mobilisation, citizenship and identity in relation to global rights to health; in particular, the paper examines the production and use of asbestos in India. For many Indians, asbestos is a product of modernisation and a means of enhancing economic growth. Asbestos roofs are what poor people desire as symbols of their economic success and modern-isation. For others, however, asbestos is a lethal carcinogen which should be banned. Behind these opposing understandings lie scientific assessments of asbestos type, fibre size, disease and health risks; technological innovations for the safe use of asbestos; activists' mobilisation to create national awareness of the hazards of asbestos and workers' experiences of ill-health. The paper examines three sets of actors and related domains: first, international health regulators, the international asbestos industry and the Indian national government provide insights into health as 'handed down' by the state, but mediated through the politics of knowledge and the politics of participation. Here the paper explores the changing patterns of global governance of health in relation to citizen engagement and mobilisation, and how these affect Indian people's experiences of citizenship and identity. Secondly, the paper examines Delhi-based anti-asbestos activists, in particular the Ban Asbestos Network India (or BANI) and its international connections. Thirdly, it investigates grassroots mobilisers in Ahmedabad. Focusing on the latter two sets of actors provides insights into how citizen mobilisations, both horizontal and vertical, intersect with the politics of knowledge, economic processes and the structures of governance. The paper

follows the activities of these differently-positioned anti-asbestos activists; examining how these citizens understand their rights in relation to the state; what strategies they use to practise citizenship and claim the right to health; how the state responds to these claims and, finally, what identities and solidarities emerge from these processes.

India is a growing economy – famous for its pharmaceutical industry, telecentres and technological developments. It, along with the rest of South Asia, is experiencing 'rapid and unplanned industrialisation' (Sharma 1998: 1). As indicated in Arundhati Roy's comment above, liberalisation, privatisation and globalisation have raised a whole new set of questions and challenges for India and its citizens, including asking at whose expense these processes occur. Accompanied by economic growth, industrialisation and newly-implemented special economic zones, liberalisation and globalisation have, however, massive ramifications for the health and wellbeing of India's citizens; posing new challenges for India's Occupational and Environmental Health (Sharma 1998; Joshi, Bhuva and Katoch 2006). Indeed, India's burgeoning economic growth has been summed up as 'the new pro-business (get rich quick at all costs, we will protect you) environment being promoted by the IMF, the World Bank and the Indian state' (NCDRLD 1992: 26). These powerful economic processes demonstrate new ways of doing business in a rapidly changing, increasing deregulated and globalising environment. In addition, altering patterns of power, governance and globalisation affect the meanings, experiences and practices of citizenship and the right to health.

Globalisation has led many people to contemplate the possibilities of living 'beyond' the state, as members of global society without adherence to national states and political boundaries. Included in the academic literature on globalisation are terms such as global citizenship and global governance which, in the light of eroding state power and economic decentralisation, evaluate the legal-philosophical implications of this new political freedom (Heater 2002; de Sousa Santos and Rodriquez-Garavito 2005). Underlying this literature is the assumption that globalisation has led to an emerging connection between local and global forces which circumvent national forces and identities (Fox 2005). Linked to this, is the question of transnational justice and the rights and responsibilities of transnational actors. Santos De Sousa and Roodriquez-Garavito suggest, for example, that global legal processes are able to protect the local from negative forces of globalisation (2005); through the manner in which local identities, legal processes, socio-cultural values and political norms are increasingly tied to international norms and through the emergence of universal values of global citizenship (Heater 2002).

Globally asbestos production and use reveals stark trends which are linked to processes of globalisation, but which reflect economic and power inequalities between countries cooperating for economic gain: almost the entire developed world[2] has banned asbestos as alternatives are widely available (Castleman 2003), yet the undeveloped world has increased its usage. In relocating commercial activities to underdeveloped countries, powerful asbestos mining companies have constructed asbestos as a benign product, asserting that certain kinds of asbestos are less harmful than others and that there are safe working

techniques (Castleman 2001). Most of these mining companies are based in the developed world with vested interests in many secondary industries, important trade connections with many underdeveloped countries and strong political connections in their own and other national governments. Their vested interests thus stretch across national and global 'spaces', but centre around international regulation processes and national policy processes as this is where decisions about the banning – or mining, manufacture and sale of asbestos – are reviewed. Canada, for example, uses minimal amounts of asbestos, exporting 96 per cent of this mined product to Asia (Toxics Link 2002). India no longer actively mines asbestos, but imports massive amounts from Canada. This industry is supported through policies and import duties which advantage asbestos over other alternatives, because the Indian Government denies the harmful effects of asbestos, describing it instead as a 'gift of God' (Castleman 2001).[3] In India, asbestos production is thus a thriving industry. For Indian citizens, seeking to claim their rights to health, it is this understanding of asbestos as safe as well as the economic and political alliance between government and industry which needs to be challenged (discussed in more detail below).

Understanding global civil society involves a conceptualisation of citizenship which has been variously understood as a legal status which posits a vertical political relationship with a nation-state; as a form of agency; as a horizontal social relationship with other individuals and; as indicated in the use of terms such as biological citizenship, ecological citizenship, transnational citizenship and therapeutic citizenship, in a myriad of other guises. Defining global citizenship and its relationship to transnational citizenship is thus fraught with difficulties. Fox understands transnational citizenship as a process in which rights-based world views are extended through cross-border civic and political communities (2005). Vertical and horizontal mobilisation is thus interrelated, occurring within, or across, national boundaries as activists seek to challenge national governments or other inequities. This can involve horizontal networks of activists at 'local, regional, national and international levels' who are developing connections and seeking to be 'effective counterweights to the often vertically well-integrated powers that be' (Fox 2005: 189). Fox thus distinguishes between state-based citizenship defined by legal political rights and society-based citizenship as collective action and identity-building. At transnational level, this society-based notion of citizenship has

2 A wide range of terms are used to characterise societies today. Often expressed as binary opposites these include undeveloped/developed, underdeveloped/overdeveloped, modernised/traditional, first world/third world, north/south, industrialised/less industrialised. No single term captures the complexity of changing economic, political, historical and cultural processes in any of these societies. In this paper, I have chosen to use the terms developed and undeveloped in order to emphasise the complex, unequal political and economic relationships which create these two extremes. There are, nonetheless, limitations in choosing these terms which overlook cultural understandings of development and which prioritise economic measures.

3 This willingness on the part of the Indian Government to flout international opinion and to encourage the asbestos industry is ongoing. Currently news articles are reporting on India's shipbreakers' expo sure to asbestos as ships such as the Clemenceau and Blue Lady are permitted to remain at Alang for scrapping. This, as journalists have pointed out, violates the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and its disposal.

also been interpreted as a as a set of 'values, norms and aspirations' (Batliwala and Brown 2006: 2).

Given, however, the complex and fractured nature of citizenship in all its manifestations, Yuval-Davis points to the multi-layered nature of collective citizenship and she argues that local, national, state, cross- or trans-state and supra-state forms of citizenship co-exist and are co-constructed in relation to each other (1999: 119). Such an approach, which brings together the state-based and society-based understandings of transnational citizenship is, as I show in this paper, of critical importance. This multi-layered and co-constructed nature of citizenship raises questions about the nature of local-global linkages (Fox 2005).

The network of concerned citizens operating globally and mobilising against asbestos can be seen as a form of transnational citizenship around which a collective social identity with similar values and aspirations has been formed. Activists, scientists, grassroots organisations and NGOs argue that the use of asbestos leads to workers and communities suffering from occupational and environmental diseases.[4] Their concerted awareness-raising has sought to pressurise governments to ban asbestos. It has also resulted in the creation of BANI, an Indian-specific organisation that aligns itself with these transnational aims and values. In this paper, I integrate Yuval-Davis's multi-layered and co-constructed approach with the work of Appadurai who argues that transnational civil society should be seen simultaneously as a project, a process and a space 'in search of an unresolved sociological form' (2006: xi). The paper demonstrates how activists seek to make global knowledge more accessible to India's citizens (as a project), how the movement against asbestos seeks to build networks, create alliances and advocacy relations as a processual experience and how, these experiences are 'interstitial, overlapping and uneven' (2006: 2). In this paper, I argue that these processes, projects and spaces work in ways that are both intimately interconnected and simultaneously enormously distant in India. Geographic and political differences between activists are compressed by globalisation processes through the development of transnational citizenship, but class, regional and educational differences between Indian workers and Indian activists are enhanced, because of the ways in which the societal, identity-building (and non-building) aspects of global citizenship occur. Thus activists based in Delhi identify with other transnational citizens rather than with the national constituency they seek to mobilise. From the BANI perspective, asbestos workers and victims are largely hidden and difficult to moblise. In failing to identify victims, the anti-asbestos movement is unable to translate its vision and global processes into meaning and accountability for ordinary citizens. Simultaneously, state intervention frames this same constituency as 'inconsequential' and 'invisible' in issues relating to citizenship.[5] This simultaneous compression and expansion of

4 Asbestos related diseases, especially mesothelioma, are on the rise in industrialised countries and are expected to peak in the following decade. Extrapolating figures from Finland, the International Labour Organisation estimates that each year 100,000 to 140,000 workers die from asbestos diseases. Conservative estimates, based on an amalgamation of studies and extrapolating results globally, estimate that the total deaths from the asbestos cancer epidemic will range from 5 to 10 million (LaDou 2004).

identities, of hypervisibility in a global forum and local invisibility, is caused by the interrelationships and contradictions between governance and regulation of asbestos, the framing of asbestos knowledge, and the processes of identity-making and citizenship.

2 Governance and regulation

Many international organisations are involved in global health governance which, although in its infancy, seeks to address health issues that cross national boundaries, are multi-sectoral, and involve a diverse array of actors and interests (Dodgson, Lee and Drager 2002; Fidler 2002). Global health governance has to engage with the contradictory principles enshrined in legal, 'environmental, trade, economic, and intellectual property policy' while crossing the intersections between health, governance, trade and intellectual property (Sell 2004: 363).[6] The failure of any single organisation to take the lead in global health governance and the varying priorities of actors and organisations – coupled with a lack of overarching authority by any one organisation – leads Dodgson, Lee and Drager to talk about a 'confusion of mandates' (2002: 13, 22). Because there is no formal authority which can stamp a definitive view on questions of global health, the role of knowledge becomes critical in debates between actors and institutions. Global health governance is thus a form of 'soft' governance. For instance, the World Health Organisation (WHO) can only recommend actions but cannot compel any states to comply. The World Trade Organisation (WTO) relies similarly on states to debate and agree on the dangers of certain industrial products, but cannot impose a judgement. As a result, and as we will come to see, global regulation does not mediate formal health rights in India.

Globalisation, accompanied by mainstream ideas of development which advocate economic growth at all costs, facilitate a cooperative relationship between capital and the state. In the case of asbestos, the alliance between the Indian Government, regulation and global capital seeks to protect neoliberalism and the market economy through a series of inclusions and exclusions. In particular, and as shown in the following section, it does not construct workers as sufferers of asbestos disease and, in so doing, denies them a form of state-based citizenship which is defined through legal rights.

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5 Framing refers to the ways in which scientific topics and policy processes are delineated. Cultural contingencies, life experiences, intellectual paradigms and political agendas are often highly influential in shaping how science or policy is conceptualised. These unrecognised 'blinkers' limit the possibilities to recognise multiple perspectives, seek more participatory solutions or question the assumptions on which decisions get made. Leach, Scoones and Wynne thus argue for the necessity of recognising other kinds of knowledge shaped – or framed – through 'other practical cultural assumptions, meanings and life-worlds' (2007: 8).

6 'Challenges to effective global governance of public health issues include trade pressures, multi-layered governance (i.e., local, national, bilateral, regional, international), the complexity of health policy jurisdiction across multilateral organisations, the simultaneous development of hard and soft law in diverse venues with conflicting mandates, and values, economic coercion, and unequal access to resources and institutions' (Sell 2004: 364).

India is a democratic republic comprised of 28 states and seven federally-governed Union Territories.[7] It has a parliamentary system, governed by the Constitution of India since 1950. Geographically India covers 3.29 million square kilometres which means that spatially it is the world's seventh largest country. As more than one billion people live in India, it is also the second largest country in the world. India also hosts a quarter of the world's poor and about 260 million people live below the poverty line. The vast numbers of people in India, coupled with poverty and unemployment, create a context in which a constant and cheap source of labour is available and jobs are fiercely guarded by workers. Simultaneously however, the Indian Government finds that, despite encouraging economic growth as a panacea to development, it is unable to meet its citizens' requirements for affordable housing, accessible health and viable livelihoods. Working in tandem, these conditions make industry – including asbestos cement companies – highly desirable.

The Government of India has acknowledged that economic liberalisation has environmental ramifications. India's judiciary recognises the joint responsibility of the state and polluting industries to shield against environmental degradation. The Indian Constitution ensures environmental protection and collective grassroots access to environmental justice through Public Interest Litigation (PIL), a legal process designed to compensate for inefficient policing, inadequate funds and conflicts of interest. The Government of India also recognises 'the right to a healthy environment' as part of 'the fundamental right to life' (Razzaque 2004: 65, 87; Das 2004). Linked to this, the Supreme Court has made a number of landmark decisions to protect the environment (which may, in turn, benefit those unable to protect themselves): closing down limestone quarries because of their environmental impacts (Razzaque 2004; Anderson and Ahmed 1996); specifying that all hazardous and polluting industries be relocated from Delhi (Dupont 2005); banning the import, production and sale of pesticides; specifying retired asbestos workers' right to medical benefits and compensation (Sathe 2002; Anderson and Ahmed 1996); ordering the installation of pollution control devices for industries along the Ganges River (Anderson and Ahmed 1996); halting the destruction of forests and stopping illegal mining (Das 2004). These Supreme Court directives, influenced by international law and global concepts of sustainable development, demonstrate the effects of globalisation on Indian jurisdiction (Desai and Muralidhar 2004).

In contradiction to these Supreme Court decisions which seek to address environmental pollution, the Government of India has also acknowledged that a 'certain degree of compromise and laxity' has characterised arrangements to date (Joshi, Bhuva and Katoch 2006: 293). The Government's promotion of large-scale industrial projects is designed to enhance economic growth and through this to benefit the poor, but in effect often further marginalises the poor from access to land, forestry and water (Mohanty and Tandon 2005: 5). In addition, and as demonstrated below, the separation of environmental and occupational issues,

7 These sub-national administrative divisions include the National Capital Territory of Delhi, the Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Lakshwdweep, and Puducherry.

coupled with the minimal occupational safety arrangements and the lack of industrial hygiene surveillance (Joshi, Bhuva and Katoch 2006), suggests that Indian authorities frequently dismiss worker's health and safety. This lack of concern, or what Allen *et al.* refer to as 'institutional fragmentation' (2006: 138), is evident in relation to asbestos issues.[8] Policies for asbestos are specified in the arena of international trade and encourage the importation of asbestos through low import duties. The delicencing of the asbestos industry, in 2003, means anyone can import asbestos without a government-approved licence (ANROAV 2007). Regulatory frameworks aimed at managing and controlling hazardous products and environmental pollution within India demonstrate institutional fragmentation and confused regulating standards. For example, the Pollution Control Board monitors how factories impact on the environment, the Factories Inspectorate deals with affected workers and occupational safety while the Controller of Explosives takes responsibility for hazards emanating from these same factories (Acharya 1989: 590).

Within India, no specific health policy addresses asbestos diseases (ANROAV 2007). Because of the diverse uses for raw asbestos, the widespread occurrence of asbestos in buildings and other structures, and the many asbestos-concrete products, workers are covered by several acts (Joshi, Bhuva and Katoch 2006).[9] The Factories Act has guidelines for workers' protection while handling asbestos. The Building and Construction Workers Act of 1996, for example, does not acknowledge that handling, sawing, or repairing asbestos concrete are dangerous working activities and only recognises Asbestosis as a notifiable occupational disease. Asbestos itself is considered a form of hazardous waste under the Hazardous Waste Rules (Management and Handling) which bans its import as a form of waste (ANROAV 2007). As Joshi, Bhuva and Katoch (2006) have argued, these acts are often outdated or do not apply to current conditions and create confusion. Ultimately institutional fragmentation, poor enforcement and lack of compliance mean that these provisions remain ineffective (ANROAV 2007).

8 In 1986 the Indian Government decided not to grant any new asbestos mining leases and in 1993 it stopped renewing existing mining leases (Ministry of Mines, 10 March 2006). India has formally stopped mining asbestos yet illegal mining continues and nothing has been done to deal with the legacy of exposed asbestos waste. In 2002, however, India produced around 14,340 tons of locally mined chrysotile and tremolite from Andhra Pradesh, Rajasthan and Bihar. It also imported about 100,000 metric tons for construction and industrial purposes. Most of this asbestos was used in the production of asbestos cement, although asbestos is also used in water and sewerage pipes, packing material, brake linings and automobile jointing, heavy equipment, nuclear power plants and thermal power plants in India. India's asbestos imports have steadily increased since the early 1990s. In 1993–1994 the asbestos cement industry produced 0.68 million tons of products, whereas in 2002–2003 1.38 million tons were produced. This industry is estimated to employ about 8,000–11,000 workers in the organised sector. It is widely recognised, however, that the unorganised or informal sector is an important part of the asbestos industry. Taking this into consideration, upwards of 100,000 workers are believed to be engaged in the asbestos industry (ANROAV 2007; Nath 2000).

9 Including the Factories Act of 1948, the Dock Workers (Safety, Health and Welfare) Act, 1986, the Indian Boilers Act, 1923, the Dangerous Machines (Regulation) Act, 1983 and the Environment (Protection) Act, 1986 and the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 and other Rules framed under the Environment (Protection) Act.

According to a 1993 Supreme Court ruling, industries have to maintain records of their workers' health for a period of 40 years and all industrial workers have to be insured under the Employees State Insurance (ESI) Act or, if only temporarily employed, under the Workmen's Compensation Act (Toxics Link 2002). The ESI Act provides for workers experiencing negative occupational health. Nationally, the ESI has a 'sizeable fund' and is maintained through contributions from employers, employees and the national GovernmentMedical care, sickness benefits, maternity benefit, disablement benefit, dependent benefit, funeral expenses, rehabilitation allowances and vocational rehabilitation training is available to workers earning up to Rs.6500 per month (PRIA 2004: 35).[10] However, in Ahmedabad for example, the ESIC (Employees' State Insurance Corporation) has 14 dispensaries and 189 panel doctors, but its activities are limited. It does not do regular checkups on workers, it does not keep records of workers' health or company performance and it does not attempt to address work environments. It thus 'does not feel responsible to address the health problems' of industrial workers (NCDRLD 1992: 14). Instead the ESIC waits for workers to approach it for relief assistance. In addition, it is very difficult for to claim compensation: local ESIC offices refuse to provide the necessary forms, the process is cumbersome and characterised by long delays, doctors employed by the ESIC are not familiar with asbestos (or other industrial) diseases and workers complain of disrespectful treatment. Thus the ESIC has been seen as 'deliberately obstructive' (NCDRLD 1992; Sharma 1998).

Conventional understandings of occupational health regulation envisage a role for the state in which it mediates between industry and workers. In India, however, occupational health institutions have tended to support an alliance between business and government. This shift in the nature and expected role of occupational health institutions further marginalises workers (Chenoy 1985). In India, the cement industry is described as the 'heavyweight' of industry and as the 'darling' of the stock exchange. In addition, Krishna argues that many government officials and politicians have vested interests in supporting the asbestos industry (2006). The State is not, however, unaware of asbestos hazards. Linked to the ESIC is the NIOH (National Institute of Occupational Health) which certifies asbestos-related cases and authorises ESI payments. In 1982 a National Campaign on Dust-Related Lung Diseases (NCDRLD) highlighted workers' experiences and challenged the NIOH on its 'pro-government stance'. The NIOH thus tried to orientate itself to workers' concerns and problems and, as a result, has recognised some workers' infliction of asbestos-related disease.

The Indian Government – under pressure to ban asbestos – has conducted research under the auspices of the Directorate General, Factory Advice Service and Labour Institute (DGFASLI – discussed in more detail below) and held a national seminar, which focused on India's controlled use of asbestos, to sensitise Labour Secretaries and Enforcement Officials about asbestos and other mining

10 This scheme is limited to workers in receipt of wages which do not exceed Rs.3,000 per month. Thus, someone who is diagnosed after a period of employment cannot claim. In the case of asbestos dis eases, which have a long delay between exposure and the onset of the disease, this works to the employers' advantage.

hazards (DGFASLI 2006). In 2004, the Indian Ministry of Chemicals and Fertilizers commissioned the NIOH to research the health and environmental hazards of chrysotile asbestos in relation to the international Rotterdam Convention on Prior Informed Consent (PIC) list for Certain Hazardous Chemicals and Pesticides in International Trade.[11] This was in preparation of an announcement by the Chemical Review Committee, in 2005,[12] that it advocated the inclusion of chrysotile on the international PIC list. Inclusion on this list would indicate to governments that powerful global actors such as the WHO, ILO, and the WTO consider chrysotile to be hazardous (Liotard 2006). These politics of knowledge issues are thus critical for India because of the way this knowledge informs global regimes which oversee, albeit through 'soft' forms of governance, public health in national contexts. This politics of knowledge around the dangers of asbestos also affects, as demonstrated below, the way in which citizenship plays out in India.

India's submission, in line with that of Russia, China, Zimbabwe and others who opposed the inclusion, hinged on the lack of Indian research on asbestos hazards: 'We have studied this issue during the past twelve months with an "open mind"' and 'We are not convinced that the opinion of putting chrysotile on the PIC list is correct … More time is needed to dwell on this issue' (cited in Kazan-Allen 2006: 30). The 2004 NIOH study – which will, when complete, provide post-hoc justification for India's position at the Rotterdam Convention – demonstrates the close alliance between government and industry. Together, they are co-funding the research. The study is based on current workers at asbestos cement factories which have been operating for 10–15 years, showing complete disregard for the well-known fact that there is a 20–40 year latency period between asbestos exposure and the onset of asbestos diseases. In addition, where the research has already produced evidence of 'impaired lung function', the NIOH has been pressurised to identity alternative explanatory factors. The study will not be peer-reviewed by independent scientists, nor will workers and members of the public be given an opportunity to comment (Dutta 2008: 2). The collusion between the national government and industry thus creates a set of framings in which it is impossible for workers to be identified as victims of asbestos-related diseases. This alliance has locked India's Government into supporting a global understanding of development as something stimulated through economic growth, while simultaneously shedding its responsibility to care for those adversely affected by economic industrialisation. These processes of inclusion and exclusion have massive ramifications for activists who seek to mobilise against the use of asbestos. In responding to the State's framings of asbestos as harmless, this mobilisation takes the form of knowledge politics.

11 The Rotterdam Convention is a multilateral agreement between country signatories that promotes shared responsibilities for importing hazardous chemicals. It became legally binding to its 73 country signatories in 2004.

12 In 2004, when the 11th session of the Intergovernmental Negotiating Committee (INC-11) met to consider the inclusion of chrysotile asbestos on the PIC list, it was unable to reach consensus, as India, Russia, Zimbabwe, Columbia, China and others opposed the inclusion (Kazan-Allen 2006; Joshi, Bhuva and Katoch 2006; Krishna 2007).

3 Knowledge politics and the global asbestos debate

The question 'how dangerous is asbestos?' has long been addressed in the international context. There are two clear protagonists in this global debate. On one side are those seeking a global ban of asbestos. This involves a large range of actors from the International Ban Asbestos Secretariat based in London, which keeps track of asbestos developments throughout the world (Kazan-Allen 2003), to small localised NGOs working in very specific geographic areas and dealing with immediate community concerns (Waldman 2007). Academics, medical specialists, journalists, and lawyers from all over the world are closely aligned with this movement. On the other side are those supporting a continued market for asbestos. Highly visible here is the Chrysotile Institute, a NGO funded by the Canadian asbestos mines. This NGO has repacked scientists' research and concerns about risk and appropriate regulation. Ultimately both sets of actors have sought to understand the extent of danger through distinguishing between several different kinds of asbestos and the associated fibres.

Chrysotile (or white asbestos), crocidolite (blue asbestos) and amosite (brown asbestos) have been mined and used in production. Chrysotile is the most common and only form of asbestos still being mined.[13] Widespread international consensus exists over the dangers of crocidolite and amosite (Braun, Greene, Manseau, Singhal, Kisting and Jacobs 2003; Landrigan and Soffritti 2005; McCulloch 2002; Welch 2007). This perception of risk has been extended to all forms of asbestos by those mobilising for asbestos bans (Normark 2006; Brophy 2006; Leigh and Driscoll 2003). For those organisations and people who seek to continue to work with asbestos, the focus has been on chrysotile's fibre composition. Indeed it was because of its unique fibre composition, that asbestos first became famous. Although asbestos is technically a mineral and a rock, its fibres are flexible enough to be woven, yet enormously strong, durable and fireproof:

> In appearance asbestos fibres are as light as eiderdown and yet as hard as any stone. To the touch a piece of raw asbestos is like rock, but with the fingers individual fibres can be teased apart. When placed under the microscope each fibre can be seen to consist of thousands of fine threads. Asbestos can be subdivided almost infinitely until molecular dimensions are achieved. A single strand weighing less than an ounce can be spun out for three hundred feet and a square yard of woven cloth will weigh less than eight ounces.
>
> (McCulloch 2002: 1)

Asbestos, as mentioned above, comes in different forms and the debate about the fibre composition of these different forms is critical to determining how dangerous it is. The politics about whether to ban asbestos or not hinges around a purely

13 Anthophyllite, tremolite and actinolite are forms of asbestos which are not mined. Crocidolite used to be mined in South Africa and Australia and amosite in South Africa (McCulloch 2002).

technical argument which has enormous political significance. In brief, the debate is as follows: there are substantial differences in the mineral structures and bio-persistence of asbestos fibre. The chemical composition of chrysotile results in 'white, soft, curly fibres and its fibre bundles have splayed ends and kinks' whereas amosite and crocidolite asbestos have 'needle-like' fibres (Gravelsons *et al.* 2004).[14] 'Soft' chrysotile fibres are reported to clear from people's lungs within a few months, whereas other asbestos fibres can remain for a year of more (Bernstein, Rogers and Smith 2003: 2005). The bio-persistence of chrysotile is thus low as it breaks up and decomposes quicker than other asbestos fibres. Bernstein and Hoskins conclude therefore that low exposures of chrysotile do not pose a risk to health (2006).[15]

This position – that low levels of exposure to chrysotile is safe – is contrasted with the view that fibre consistency is irrelevant and, even if chrysotile has lower bio-persistence, it can still trigger mesothelioma and other asbestos diseases (Egilman 2003; Landrigan and Soffritti 2005).[16] Egilman argues, for instance, that even if chrysotile fibres are broken down in the lung, they are not expelled from the body and thus still pose a long-term risk (2003). In addition, Canadian chrysotile has been, and continues to be, associated with mesothelioma (Landrigan and Soffritti 2005). LaDou therefore argues that 'actually, on a per-fiber basis, the highest risks have been shown for chrysotile' (2004: 288).

These competing epistemologies result in scientific expertise being divided over the dangers of chrysotile asbestos, and this in turn affects the production process. The Chrysotile Institute argues that careful maintenance of a 'practical' threshold level of exposure ensures that there will be no adverse effects' (2007: 4).[17] In the search for safe ways of processing asbestos, considerable emphasis is put on 'controlled use' which includes regulations, good work practices, dust controls, monitoring the work environment, medical surveillance, education and training for workers. In theory, this 'allows society to benefit from cost-efficient, needed materials used in a responsible safe manner' (CI 2007: 6). There is, in addition, scientific literature which supports the suggestion that chrysotile asbestos can be safely used in production plants. Numerous studies conducted during the 1980s suggest that the statistical probability of risk is low (Gardener and Powell 1986: Hughes, Weill and Hammad 1987; Thomas, Benjamin, Elwood and Sweetnam

14 Chrysotile is composed predominantly of magnesium while crocidolite and amosite have high concentrations of sodium and iron.

15 This research is based on the understanding that previous studies exposed animals to very high concentrations of chrysotile resulting in lung overload. Bernstein and Hoskins also point to evidence that heavy and prolonged exposure to chrysotile does produce lung cancer (2006).

16 Less prominent in the global debates are attempts to assess the significance of fibre mass versus the number of fibres.

17 It does not, however, define what this threshold might be. In practice threshold levels vary according to government regulation and this works to the asbestos industry's advantage. For example, asbestos standards in Ontario are set at 0.1 f/cm3 (fibres per cubic centimetre) which are said to carry a 'life time risk of 5 excess lung cancers per 1000 workers' and a workers' risk of 2/1000 workers of contracting asbestos (Brophy 2006: 17) whereas the legal threshold in India was 1 f/ cm3 (DGFASLI 2005) and has recently been brought to 0.1 f/ cm3 (Ansari, Ahmad, Yunus and Rahman 2007).

1982; Weiss 1977). Critiques of this research point, however, to the political and economic contexts in which this research was conducted: to the relationships between the asbestos mining industry and lucratively-paid consultants whose research excludes negative data. They point also to the fact that 'controlled use' excludes the use of saws and drills on asbestos cement products and the impossibility of controlling in-situ asbestos cement in houses, schools, or other buildings (Castleman 2003; Egilman and Bohme 2005; Bohme, Zorabedian and Egilman 2005; Egilman and Billings 2005; Welch 2007). ' "Controlled use" of asbestos' argues Castleman, 'is the asbestos industry's way of referring to business as usual with a false face' (2003: 298). Anti-asbestos movements thus assert that 'the only "safe use" of asbestos is no use' (Normark 2006: 7). This activist understanding of asbestos is also grounded in scientific research done by independent researchers who are not on the asbestos industry's payroll, whose work is supported by prestigious medical associations such as Collegium Ramazzini[18] and disseminated in peer-reviewed scientific publications (see for instance, Landrigan, Nicholson, Suzuki and Ladou 1999; Nicholson 2001; Lemon 2004; Terracini 2006).

These viewpoints – constructed differently depending on people's position within the debate – are widely circulated. Published articles reflect positively on how asbestos can be safely used (Bernstein, Rogers and Smith 2003; Bernstein and Hoskins 2006; Yarborough 2006). Other publications challenge this conclusion, questioning the techniques used and putting forward alternative research (Castleman and Lemen 1998; Egilman and Billings 2005; Welch 2007). Information is also available on websites managed by people on both sides of the debate as they seek to make their version of 'scientific' data more accessible.[19] Many of the articles posted on these websites assess India's response to asbestos debates and to global processes such as the Rotterdam Convention. In addition, a range of trade unions and other advocacy-related organisations have issued publications aimed at policymakers. Access to resources, styles of engagement in politics and ability to network influence the dissemination of these competing claims to knowledge.

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18 The Colleguim Ramazzini is an international society of academics concerned with critical occupational and environmental medicine. It is committed to the promotion of health and prevention of disease. Named after the Italian physician, Bernardino Ramazzini (1633–1714), it is financially independent and has a membership of 180 elected physicians and scientists from 30 countries (Landrigan and Soffritti 2005).

19 These include sites such as 'The White Lung Association' based in Baltimore (www.whitelung.org); the International Ban Asbestos Secretariat (www.ibas.co.uk); Mining Watch (www.miningwatch.ca); the Mines and Communities website (www.minesandcommunities.org). Juxtaposed to these websites and articles are the web pages created by, or supported by, the asbestos mining companies. The Canadian chrysotile mining industry is perhaps the strongest of these organisations and it supports a wide range of activities aimed at generating confidence in asbestos and asbestos-related products. The Chrysotile Institute is dedicated to promoting the safe use of chrysotile, to disseminating information and advice to chrysotile producers and users, and to inform and advise the general public, the legal structures, media and other concerned peoples. In addition to hosting its own website (www.chrysotile.com), this organisation creates glossy newsletters which relay scientific conclusions which reflect positively on the use of chrysotile and which engage directly in policy assertions and politics.

The Chrysotile Institute is a well-resourced NGO funded directly by Canadian asbestos mining. This has enabled it to develop a high profile, employing media and public relations specialists and scientists. It has also been particularly successful in engaging with global organisations – such as the World Health Organisation (WHO), the International Labour Office (ILO)[20] and the International Programme on Chemical Safety (IPCS).[21] For example, an IPCS report, published in 1998, concluded that 'no threshold of exposure has been identified for the carcinogenic risk of chrysotile' (Castleman 2001: 196). The WHO released two reports in 1997, namely *Asbestos and Health and Asbestos in Buildings*, which have been seen to 'read more like endorsements for why asbestos should continue to be used' (Castleman 2001: 197). Both reports avoided discussing the dangers of asbestos cement and disregard developing countries' continued use, implying that high exposures are 'a thing of the past' while encouraging hygienic working conditions and restrained, unemotional responses. In the 1990s, people appeared as ILO representatives and projected pro-mining viewpoints, while the ILO failed to take a position on chrysotile asbestos (despite having published stark warnings about asbestos dangers in 1930 and 1974, Castleman 2001; LaDou 2004). Over the past 15 years, these and other international organisations' reports on chrysotile asbestos have been widely criticised by the National Institute for Occupational Safety and Health (NIOSH) in the United States and by the Collegium Ramazzini for downplaying the dangers and for a lack of scientific objectivity (Castleman 2001). In addition, in 2007, 81 respected scientists and occupational health professionals wrote to the IPCS, expressing their unease over industrial influence in IPCS reports (Welch 2007). Inadequate UN funding of the WHO and ILO has increased industry involvement in these organisations and encouraged WHO officials' tendency to be 'lulled into inaction' by conflicting scientific reports (LaDou 2004: 286).

There remains a great deal of confusion over the WHO position. In October 2006, the WHO issued a policy statement which argued that the best way to eliminate asbestos diseases was to stop using asbestos. This statement, which did not distinguish chrysotile from amosite or crocidolite, could not support a 'differentiated approach'. In May 2007, the WHO's decision-making body, the World Health Assembly (WHA), stated that its 'activities will include global campaigns for [the] elimination of asbestos-related diseases – bearing in mind a differentiated approach to regulating its various forms – in line with relevant international legal instruments and the latest evidence for effective interventions' (Kazan-Allen 2007). This turnabout from the 2006 position came after critique from the Chrysotile Institute (in February 2007) which found the 'changes in the traditional position of the WHO on the question of health and safety in the use of asbestos' profoundly worrying. Despite this turnabout, when challenged by IBAS

20 The preventative and protective measures for the safe use of asbestos have been laid out in Convention 162 since 1986. However, in 2006 the ILO adopted a new Resolution on the use of asbestos which implicitly suggests that the ILO favours the banning of asbestos (CI 2007).

21 The IPCS is funded by the WHO, the ILO, the United Nations Environment Program (UNEP) and is housed at the WHO headquarters in Geneva. The IPCS aims to establish a scientific basis for the safe use of chemicals while also supporting and strengthening national capacity.

and others on the 2007 differentiated approach, the WHO Health and Safety specialist emailed that the 'WHO position remains unchanged', supporting the ban of all forms of asbestos in order to ensure the elimination of asbestos-related diseases. This demonstrates, as LaDou has argued, the WHO's (and ILO's) attempts to bridge these opposing positions and reach a compromise, but such an approach severely inhibits their ability to address contentious and important public health issues (2004: 288).

The changing global context in which these debates occur, coupled with the under-resourced nature of international development organisations, provide a fertile environment for industry to exercise control in the defining of asbestos risk and hazards. These global processes on disease epistemology, knowledge and risk are in turn translated into the Indian context. Here questions about the dangers of asbestos are closely linked to questions of economic development and modernisation. The failure of the Government to mediate between workers and industry and the alliance between the Indian Government and industry, means that national debates on knowledge politics resonated with – and yet also recast – the international debate.

4 Knowledge politics and the Indian asbestos debate

The title of this paper, 'Show me the Evidence', comes from an interview with an Indian researcher working in occupational health. He was working on the 1982 National Campaign in Dust-Related Lung Diseases, when he presented a paper on asbestos hazards at a manufacturers' conference. He was immediately asked to withdraw his paper or face legal charges. A representative from the manufactures' conference said 'show me the evidence', 'show me an Indian study saying that it's harmful'.

Almost 30 years later, the need to show evidence continues to be a significant part of the discourse used by the asbestos industry and the Indian Government. As demonstrated above, it was the reason for India's rejection of the Rotterdam Convention in 2004 and again in 2008. Linked to this need to show Indian evidence, is a strong sense that India is different: 'In the Indian context, some things have no relevance' said the Chairman of the (Indian) Asbestos Institute,[22] who added that India had learnt from Western countries' mistakes and could therefore handle asbestos differently. 'Today each country is responsible for its own citizens' he continued,

> We have a large medical profession and a lot of scientists doing studies. It should be left to the country – to India – to decide what is good for me … the Government is convinced that the use of white asbestos does not pose any health risk. When we find that this is harmful, then we will stop using it … It is not out of ignorance, it is out of knowledge that we are using it.

22 This organisation has strong links to the Canadian Asbestos Institute.

This emphasis on Indian evidence to explain the Indian context is a way of countering growing international consensus and opposing moves towards a global ban. This quote also indicates the Chairman's attempts to define India's citizens in terms of national boundaries and, in so doing, to control their actions. In his conceptualisation of the asbestos debate, citizens' understanding of the issues should be influenced by professional medical knowledge conducted on behalf of the national state. As is also clear from this quote, the Chairman identifies wholly with India and its government, despite the fact that his primary source of information comes from the Canadian pro-mining organisation, the Chrysotile Institute (described above). In fact, a double-edged process is happening whereby, on the one hand, the Government places the responsibility on anti-asbestos campaigners such as BANI to demonstrate that asbestos is dangerous while exonerating those that import, produce and market it from this responsibility. On the other hand, the State and its associated professional medical complex define asbestos diseases in very restricted ways, making it very difficult for activists and 'dissident researchers' to prove the hazards of asbestos.

In India asbestos disease is very narrowly defined, focusing primarily on asbestosis, although some official statutes also include lung cancer and mesothelioma. An official government report on the health status of asbestos workers, carried out in preparation for the Rotterdam Convention and released by the DGFASLI in 2004, argued that it had conducted a 'multi-disciplinary National project' in which 702 workers were examined, but it found 'no established case suggestive of asbestosis' (2004: 3). The DGFASLI released another study in 2005 which examined the work environment in the asbestos manufacturing industry. This study argued that 'large and medium scale industries in the organised sector' had taken 'all necessary safety and environmental control measures and are maintaining excellent hygiene, health and safety conditions' (2005: 7).[23] It recorded airborne asbestos fibres well below the legal threshold limit of 0.1 f/cm3 in all these industries and used this to sidestep the question of whether this threshold – which is considerably higher than that permitted in other countries – is safe. Interim reports on a recent study, currently being carried out by the NIOH, suggest that it will reach similar conclusions (Dutta 2008). This means that very few cases of asbestosis, lung cancer and mesothelioma are diagnosed in India. The above-mentioned Building and Construction Workers Act, 1996 recognises only asbestosis, ignoring lung cancer and mesothelioma as occupational diseases. In 2005, it was reported that less than 30 workers had been compensated by the Workmen's Compensation and ESI Acts; while occupational lung cancer had never been officially diagnosed and compensated (Murlidhar and Kanhere 2005). Such figures support the Government's argument that Indian asbestos is safe and that controlled methods of production protect workers. Despite these and other studies, there is a general sense that very little Indian research demonstrates the dangers of asbestos. This perception, reiterated by actors across the political spectrum, does not, however, stand up to scrutiny. A

23 The Times News Network, India, pointed out that that the Indian asbestos industry was co-funding this research with the Indian Government. In addition to being able to influence the research design, it will have privileged access to the reports prior to publication (Times News Network 21 June 2007).

growing body of Indian scientific research points to the hazards of asbestos and to the presence of asbestosis and other related diseases (Murlidhar and Kanhere 2005; Ramanthan and Subramanian 2001; Nath 2000). As, however, this research does not focus on epidemiological debates about fibre size and bio-persistence, and instead examines the political and economic contexts in which workers are positioned, it is easily dismissed. For example, Murlidhar and Kanhere reported that of an estimated 100,000 workers exposed to asbestos in India, fewer than 30 had been compensated for asbestos diseases (2005). Refuting the suggestion that Indian asbestos is safe, they turned their attention to the political reasons why so few cases have been recognised. These include workers' difficulty in obtaining medical certifications from their employers, deliberate misdiagnosis, management's control over workers, over the factory space and over the results of any medical surveillance and finally, what they term, the 'healthy worker effect'.[24] Similarly, Nath's work demonstrates the peripatetic nature of construction workers, and he argues that their temporary, migratory lifestyle means they often have no written record of employment (2000: 316). As far as exposure to asbestos fibres and official records of asbestos-related diseases go, these workers are simply invisible. As far as legal state-based notions of citizenship go, these workers are denied the basic right to a healthy working environment.

India's failure to prioritise occupational health is accompanied by a severe shortage of trained medical personnel (Joshi, Bhuva and Katoch 2006). India's first occupational health course aimed at medics was launched, amid much scepticism from the medical establishment, in 2005. As Professor Joshi was unable to fill the course, he approached the Government for help. Dr Neeraj Gupta was, at the time, working as a government doctor and, as the youngest and most subordinate, he was made to attend. Prior to attending the course, he was vaguely aware of diseases such as silicosis 'just as a disease', but unaware that such diseases were preventable and untreatable. Despite that fact that this course, and others similar to it, are now more widely available, the medical community has very little sensitivity and professional training on occupational health. Doctors are unaware of the need to look for asbestos-related and other occupational diseases and often treat the symptoms as chronic bronchitis or Tuberculosis (Murlidhar and Kanhere 2005). Even in exceptional circumstances, when doctors come face-to-face with asbestos-related illnesses, they are reluctant to get involved in the 'medico-legal aspects' (PRIA 2004: 4).

In – in the State's view – exceptional circumstances where workers do contract occupational diseases, they are eligible for Employees' State Insurance Corporation. However, because asbestos is often produced in special hazardous zones which allow companies to exempt themselves from ESIC, workers are often not eligible for compensation. This lack of eligibility further reduces the number of recorded instances of asbestos-related diseases and, in turn, reinforces the view that Indian techniques for working with asbestos are safe. In addition to a

24 Companies' tendency to keep only healthy workers on as full-time employees, while using part-time and casual workers to do the hazardous jobs, and workers' tendency to voluntarily stop coming to work once they get sick as they know that they cannot perform satisfactorily, relieves management from recording workers' illness and from officially retiring them.

legislative environment that defines asbestos diseases in limited terms, doctors' inability to recognise occupational health diseases, and bureaucratic procedures making it difficult for workers to claim compensation, workers are themselves ignorant of these diseases and act in ways which further undermine the visibility of asbestos victims. It is in this context that the NIOH was able to record – as a victory for workers – the identification of mesothelioma and asbestosis cases in Hyderabad and Mumbai. These cases were also significant because they showed that 'longterm exposure to any type of asbestos can lead to development of asbestosis, lung cancer and mesothelioma' (Krishna 2006: 25) and because these results were presented in parliament. These cases show how tenuous the vertical links are for activists seeking to mobilise against asbestos production and use in India. The official denial of dangers associated with asbestos and the refusal by activists to consider anything less than an outright ban of asbestos makes it extremely hard – if not impossible – for activists to establish political relationships with government and other influential actors within the Indian state.

Knowledge politics in India draw on – and restructure – global politics about asbestos risks and dangers in ways that undermine Indian activists' vertical mobilisation. India's quest to facilitate economic growth and to develop through a western model of economic growth means that particular kinds of knowledges come to be seen as more pertinent: Indian examples and statistics are required rather than drawing on the experience of industrialised nations; epidemiological understandings are elevated while sociopolitical and economic analyses are dismissed. Ultimately, both the framing of the governance and regulation of asbestos and the competing interpretations of scientific knowledge about asbestos, are also influenced – and influencing – by activists' identities and practices of citizenship. This model of economic growth also shapes Indian citizens' conceptualisation of health rights. Citizens claiming global rights to health therefore have to understand the right to health in relation to both national and global contexts. It is, ultimately, the politics of knowledge which mediates between these national and global contexts. In turn, activists' interpretation and use of the politics of knowledge to further their mobilisation affects their identities in particular kinds of ways.

5 Mobilisation, identity and citizenship practices

State decisions about regulation, threshold levels, identification of disease and so forth are, as Yarborough (2006) suggests, political decisions which reflect public policies rather than scientific application onto epidemiological studies. In the case of India, the Government of India has chosen to align itself with the asbestos industry. As demonstrated above, it therefore defines asbestos diseases in very narrow ways which perpetuates the idea that these diseases are not prevalent in society. These decisions, and associated Government policy processes, affect a wide range of people and influence many people's experience of citizenship both by acknowledging some rights and freedoms and by demarcating the limits of participation. The following section compares two types of organisations which

demonstrate different types of mobilisation, participation and identity. The first organisation considered has its roots in transnational citizenship; indeed its source of protection comes from cosmopolitan networks and relationships. In contrast, the second organisation considered here is a grassroots organisation which finds it strategic to curtail transnational and global relations, focusing instead on horizontal networks with local actors.

Transnational 'space-based' mobilisation: Indian activists working on anti-asbestos campaigns take on a daunting citizenship challenge. BANI, is a very small organisation consisting of civil society groups, trade unions and human rights groups. BANI is primarily a Delhi-based alliance of scientists, doctors, public health researchers, trade unions, activists and civil society groups which 'condemns the government's continued pro-industry bias and lack of concern for the asbestos-injured' (Krishna 2006: 25) and demands an immediate ban on all uses of asbestos in India.[25] BANI has succeeded in drawing civil society's attention to hazardous and toxic products (Krishna n.d.), in rallying medical experts to demand the phasing out of asbestos (Satish Misra 2003), in filing complaints to the National Human Rights Commission, in pressurising the government to initiate studies and in re-orientating the NIOH towards workers' concerns and needs.

Scholte argues that six factors are crucial to the success and failure of civil society organisations that seek to challenge the state. These are: the receptivity of the mass media, officials' attitudes, the country's political culture, the availability of resources, and finally group accountability and access to networks (2002). An examination of BANI's mobilisation experience shows that the bulk of these factors work in ways that inhibit their mobilisation. However, because of the way globalisation has shaped relationships and identities, the accountability of the groups and the access to networks have more ambiguous consequences, working both to support BANI's activism and simultaneously, to undermine their activities. As a fledging organisation founded in 2002, BANI has faced a number of difficulties. Some of these were, as Scholte predicted (2002), linked to the negative responses they received from the media and from civil society. After a spate of BANI-influenced media articles on the dangers of asbestos, the asbestos cement industry published advertisements declaring asbestos safe. This resulted in public tirades labelling BANI as anti-development, elitist and not caring about the needs of the poor.

BANI experiences negative attitudes from government officials, whereas Sholte identifies receptive government stance as critical for success. For example, Professor Joshi, a prominent BANI member, was threatened with legal action from the asbestos companies. In conjunction with this, government officials suspended him from his work at a national health institution. This lack of government support

25 BANI's history is well documented and therefore not detailed here (Kazan-Allen 2003; Castleman 2002). Its members include Kalyaneswari-Kolkata, Toxics link-Delhi, Paryavaran Suraksha Samiti-Gujarat, Mines, Minerals and People-Delhi, Mine Labour Protection Campaign-Rajasthan, Banjara Development Society, Greenpeace-Delhi, People's Training Resource Centre-Gujarat and Occupational Health and Safety Association-Gujarat.

is linked to India's political culture. Although India is an established democracy, this does not necessarily facilitate anti-asbestos mobilisation. The Government establishes spaces for participation, but these are bound by rules, codes for representation and inclusion which ensure that the Government remains dominant (Mohanty and Tandon 2005). In contrast to many other social movements, BANI is seeking neither to collaborate nor to establish a consensus. It emphatically states that there is no room for negotiation: 'We can't say we can live with asbestos. We say what we feel needs to be said, we put ourselves in difficult positions but what's the point of being here, what's the point of doing things half-way? We have to be reasonable, but we are also completely clear [that asbestos must be banned]'.

As observed by Mohanty and Tandon (2005), mobilisation and making demands on the state is never easy; not even when the state is committed to progressive, democratic and participatory procedures. This is because civil society's relationship with the State has to constantly change and develop, as the State makes progressive policies, but continues to enable divisive politics; claims to privilege scientific knowledge, but does not necessarily do so and stage-manages citizen participation. This means that, even under ideal circumstances where participation is encouraged by the state, people experience difficulty determining their role and identity as citizens because the elements of that identity are constantly shifting in response to the machinations of the state. BANI it seems, has responded to this challenge by not defining themselves in assertive, definitive ways. Rather, as BANI members point out, it is an ebb and a flow, their strengths will come and go. By not having a clear presence or, in the words of one activist, by being a 'silent network' BANI is also harder to pinpoint and this makes it harder for the industry to try and persuade members to change allegiances. BANI's sense of purpose is, as Falk would argue, aspirational, based on a conviction that it is necessary to force 'the impossible to happen' (1994: 132; also see Appadurai 2006). BANI aims to achieve an asbestos ban, but also to make its message heard: 'We are not going away. It doesn't matter if we win or loose, it needs to be said and we must say it'. This means that, at the national level, BANI and the Government are locked in direct conflict over the control and monitoring of asbestos.

India's policy of economic growth, and its accompanying lack of concern for workers, has also provided industry with considerable autonomy which enables factories to protect themselves against outside scrutiny. Access to factories and other industrial sites is strictly controlled, making it very hard for BANI to compare conditions, develop widespread awareness or to share experiences of working conditions (PRIA 2004: 4). Asbestos companies are not required to publicly disseminate their health and safety records. Structural economic conditions further decrease BANI's mobilising opportunities. Despite the emphasis on economic growth, India remains a country where millions of people are unemployed, housed in slums, sleeping on the streets and surviving below the poverty line. This places massive incentives for people to want to keep their jobs, regardless of the employment conditions. Workers and trade unions thus face a difficult choice in relation to asbestos issues.[26] As government officials and the AIC perpetuate the asbestos-is-not-toxic viewpoint, many workers (supported by their trade unions) prefer to remain employed. Even if workers believe in the hazardous nature of

asbestos, they face an impossible choice. They could mobilise around asbestos issues, but would loose their jobs. 'Then we will die [from starvation]'. Alternatively, they could continue to work and risk contracting an asbestos disease: 'at least we will die later [in 20 or 30 years when the disease develops] and our family will live'. Asbestos diseases, in particular, force workers into this binary choice because, as Mr Ganguly explained, 'it's a slow acting poison, that is the problem, the slow action and the fact that there's no treatment, so people don't take it seriously'. Workers themselves will not request medicals or compensation for fear of losing their jobs. Thus, although some Trade Unions work with BANI to ban asbestos, many of them prefer to put pressure on the government to design safety devices, diagnostic tools and implement compensation. As Mr Ganguly said, 'so we do collaborate to create awareness and put pressure on the government, but our primary concern is not the banning of asbestos'. It is thus clear that, despite being a democracy which emphasises participation and the importance of knowledge, India's political culture and the accompanying socioeconomic conditions, impedes BANI's attempts at mobilisation.

Finally, Scholte identifies the accountability of the group and the nature of its networks as critical factors influencing mobilisation (2002). In the case of BANI, these two factors are interrelated and work in ambivalent ways which both undermine and support BANI's mobilisation strategies. In terms of accountability, BANI operates in a context where the political constituency is missing because asbestos diseases are narrowly defined and there is no official asbestos disease registry. This lack of evidence is keenly felt by BANI which needs to have victims as a source of mobilisation. As one member of BANI explained, it has to be able to produce hard evidence of what is happening in India, it has to be able to show the health effects if this is to be a driver for change. But the current failure to identify and record victims means that there is not much political agency to push this forward. Another BANI member phrased this in terms of mass action and mass awareness. He argued that – as long as no victims were identified and people were not being seen to be affected by asbestos – workers remained 'bogged down by bread and butter issues' and preferred not to 'engage in a struggle with management'. Despite recognising the need for workers in the anti-asbestos campaign, BANI has not sought to mobilise workers directly, although work by Dutta, Sreedhar and Basu attempts to bridge this gap by highlighting the experiences of people living in the vicinity of abandoned asbestos mines (Dutta 2004; Dutta, Sreedhar and Basu 2003).

BANI's strategy is very different to previous attempts to address occupational health in India. Mentioned above is the National Lung Campaign, the first occupational health struggle run by PRIA in the early 1980s. This campaign prioritised workers and targeted these people in terms of its mobilisation strategy. It focused on the 'conscientization and leadership building of workers activists' (PRIA 2004: 1). Campaigners thus sought to make workers ask questions about accountability and citizenship rights. In response to this, the government was

26 Despite mobilisation on occupational health issues in order to counter workers' lack of awareness (CSE 2000; Meenakshi 2000; Ramanathan and Subramanian 2001; PRIA 2004).

considered to be the duty bearer and claims were made directly on the state. The lung campaign did have some successes: the NIOH was forced to adopt a more uncomfortable mediating position between the Government and workers and to be more accountable to workers; although, as we shall later see, it has not always succeeded in representing workers interests. The campaign led to new grassroots organisations addressing occupational health. These organisations, started by workers whose personal experience of the work environment and of workers' physical deterioration, have demonstrated their sustainability, successfully challenging the government on a wide range of occupational health issues such as sewerage workers' exposure to hazardous conditions and cotton workers' experience of bysinnosis.

BANI's origins stem out of the National Lung Campaign as well as from the more recent possibilities created by globalisation. During this campaign, Barry Castleman, an environmentalist and researcher specialising on asbestos hazards, who has links with the International Ban Asbestos Secretariat (IBAS) and the Collegium Ramazzini, visited PRIA in New Delhi. His visit established the transnational links out of which BANI emerged. Thus most BANI representatives, interviewed for this research, had initially begun to question the safety of asbestos because of their international connections. For example, Professor Joshi was influenced by colleagues at the Mount Sinai Irving Center for Occupational and Environmental medicine in New York, whereas journalists followed European and American media debates. Consequently BANI was created out of exposure to international knowledge and to non-Indian activists. It was not a grassroots initiative in the sense that these actors responded to local complaints. Nonetheless, this international influence allowed BANI to introduce a counter discourse which inspires activists to establish horizontal networks with international actors. This, in turn, provides Indian activists with opportunities to link with global political structures in the belief that these will be able to influence India's powers that be and, in so doing, to effect transitions in their vertical political relations with the Indian government. BANI's ebb and flow approach, its characterisation of itself as a silent network, is thus a reflection of its origins. This approach, while effective in terms of remaining 'out of the reach' of the state, makes it difficult for BANI to maintain an active presence in Delhi. This ephemeral presence leads many people to argue that 'the edge has been lost' and that BANI is not sufficiently proactive. BANI does not appear to be organising meetings and using the media. It does not have an office, a logo, or a public relations person. While this lack of presence is interpreted by many people as evidence of BANI's lack of political muscle, BANI sees these as positive attributes. It provides a shield for political activity: 'We are able to do things that are not on our website, not in the public zone. There is no name associated with it, but it's very important for the network'. Electronic communication makes this form of coalition and mobilisation possible: 'rather than be represented by a building that people enter, these actors may be located on electronic networks and exist as 'virtual communities' that have no precise physical address' (Rosenau 2002: 58). This 'virtual community' also provides an international medium of engagement: in the case of the French ship, the Clementrau, 'BANI was used, rather than there being action within BANI' as IBAS mobilised through BANI.

This is not to say that there is no BANI presence or that BANI is not proactive in

mobilising in India. Those few BANI members who take overt, public stands are protected by their international links and networks with IBAS. These horizontal relationships with transnational actors and organisations do not only influence BANI activists' identity; they are also crucial networks which provide international political connections, mobilisation space and protection. Landrigan and Soffritti (2005) point out that this international support is critical as Indian scientists and other involved persons have received death threats and attacks on their professional careers. As mentioned above, when Professor Joshi was suspended from his post, a 'virtual network of international support' sustained him as he refused to withdraw his anti-asbestos statements or to terminate his activist activities (Castleman 2002: 3; Landrigan and Soffritti 2004). These international connections provide a vital source of inspiration and protection for many Delhi-based activists. These networks are, however, more than inspiration and protection; it is through these networks that members of BANI forge a shared identity with other transnational actors. Through IBAS and BANI, medical experts share experiences, develop supportive peer relations, expand opportunities for publication and enhance their academic status. Fox has suggested that the analogous roles played by anti-toxic activists located in different parts of the world create a shared status of 'counterparts'. In addition to the explicit desire to ban asbestos, BANI activists – as doctors, journalists and lawyers – share broad ideological and political values with transnational activists, including high levels of education; middle-class standards and democratic values and the inter-connectedness of their lives through ICTs. The sharing of these extra-mural values enhances their shared collective identity (Fox 2005).

BANI's identification with international anti-asbestos campaigners, rather than with workers, is evident in its activities. In campaigning against the dismantling of the Blue Lady,[27] an asbestos-laden ship exported to India for decommissioning and dismantling, BANI focused on establishing transnational networks, setting up meetings and bringing together various parties to put pressure on the state. In May 2006, BANI requested that the Supreme Court ensure the Blue Lady's compliance with both international and Indian law. Activists pointed out that the importing of asbestos waste was banned under the Hazardous Waste Rules, 2003 and under the Indian Environment Protection Act and therefore dismantling the Blue Lady violated the Basel Convention (Ganguly 2007).[28] These concerns were however overruled by the Supreme Court in June 2006 which, despite activists' protests and media outrage, permitted the ship to anchor offshore at Western Alang Shipyard.[29] Supreme Court permission to anchor was granted on 'humanitarian' grounds while the Pollution Control Board reversed an earlier decision allowing the import of the ship.[30] The Supreme Court then constituted a Technical Committee on Shipbreaking to examine the associated health risks.

27 Originally known as the SS France, then the SS Norway, this ship was turned away from Bangladesh in 2006 as too toxic to be dismantled (See Ganguly 2007 for a full account).

28 As an international treaty, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal aims to prevent developed countries dumping hazardous waste in less developed countries and to ensure that materials are managed in environmentally sound ways with minimal transportation. Ships crossing national jurisdictions are subject to the Basel Convention.

During this investigation, BANI representatives focused on a legal battle with the State. They pointed out that: 'the court is perverting the meaning of environment and using it to nullify the needs of local people or to justify things that they are doing'. BANI ensured that their lawyers attended court hearings and witnessed the Supreme Court's actions, it planned ongoing research into the dangers of asbestos and an international campaign with simultaneous demonstrations in Germany, Norway and India to reveal the double standards of countries which sent ships to India without prior decontamination. This 'boomerang approach' (Keck and Sikkink 1998) or 'stretching' of politics (Held and McGrew 2002) has the advantage of using transnational advocacy as a means of outflanking the Indian Government and putting international pressure on a domestic issue (Keck and Sikkink 1998).

Ultimately this campaign was unsuccessful and, despite unofficial estimates that the Blue Lady contained about 1,200 tons of asbestos and other carcinogens, the Technical Committee of Shipbreaking did not find 'anything harmful for people and environment in the dismantling of the Blue Lady' (Gujarat Global News Network 11 September 2007). The Supreme Court decided, in September 2007, that the ship could be dismantled at Alang, accepting the Technical Committee's report at face value. Disappointed BANI members pointed to the various discrepancies between Indian Law, Supreme Court directives and actual practice (*New India Press* 11 September 2007; Reuters 11 September 2007).

BANI did not engage directly with the workers in Alang or anyone else experiencing exposure to asbestos. It did not mobilise around complaints made by villagers in Alang's vicinity, nor did BANI align itself with the Panchayat of Talaja District who filed an application on behalf of all 30,000 people living within 25 kilometres of Alang (Ganguly 2007). Instead, BANI's campaigns were aimed at an international audience, orchestrated to take place simultaneously in Norway, Germany and India. This would facilitate 'maximum' impact in a manner made possible through globalising processes of media reporting, internet, email and other forms of ICT. BANI's cosmopolitan engagement – which are necessarily linked to the global political structures it engages in – exists in a 'now you see it, now you don't' *modus operandi* in New Delhi. It is possible to trace a correlation between the waxing and waning of BANI's activities and international ban-asbestos activism. BANI's primary interaction – and target – is the Government of India. Although many members are based in other states, the movement does not have a strong domestic presence. This is in keeping with much of the literature on social movements, mobilisation and globalisation, which emphasises transnational civil society and NGO participation at the expense of local, small scale public action that supports these global processes (Edelman 2001; Escobar and Alvarez 1992; Laclau and Mouffe 1985; Touraine 1988; Falk 1993; Price 1998; Sikkerk 1998; Keck and Sikkink 1998). As Escobar has argued,

29 This is the world's largest shipbreaking yard. Workers are not covered by any legislation, tend to be primarily migrants and are not provided with any training or protective equipment. Environmental activists estimate that one in six workers at Alang suffer from asbestosis (*Gujarat Global* 11 September 2007).

30 Damage to the ship's hull limited its seaworthiness.

'the concern with space has led to a marginalisation of place that has consequences for how we think about culture, nature, development and the like' (1999: 292). BANI's inspiration came from global networks, processes and influences and it challenged the manner in which national processes systematically defined asbestos use as safe; in the process failing to acknowledge the threats to workers' health.[31] In its association with transnational 'spaces', BANI was distanced from grassroots mobilisation around asbestos issues. This is partly a feature of globalisation in which the 'discourse of globalisation is itself growing dangerously dispersed, with the language of epistemic communities, the discourse of states and inter-state fora, and the everyday undertanding of global forces by the poor growing steadily apart' (Appadurai 2000: 2). He suggests that the poor and their representatives are thus increasingly isolated from national discourses about globalisation as well as from debates and policy discourses about trade, labour, environment and disease. As the following section demonstrates, similar processes pervade at State level, although moving away from New Delhi and its cosmopolitanism, also leads to very different mobilisation strategies.

Grassroots 'place-based' mobilisation: Van Steenbergen suggests that citizenship is a dynamic concept which requires some form of participation in order to realise this status (1994; also see Lipschutz 2004; Scholte 2002; Batliwala and Brown 2006). He argues that, whereas the environmental movement seeks to defend the environment against others, the toxic movement is about workers standing up for their rights. Grassroots social movements are thus vital if industrial workers are to receive an extension of their citizenship rights. For van Steenbergen, citizenship involves rights, entitlements, duties, obligations and responsibilities and this is achieved through ' "being part of" as well as to being active in and fully responsible for' (1994: 164). How successful mobilisation strategies are in claiming these rights and creating active processes of citizenship is, as we have seen in the case of BANI above, linked to the availability of resources, access to networks, mass media receptivity, the accountability of groups, the political culture of the country and officials' attitudes (cf. Scholte 2002).

Examining grassroots mobilisation requires a shift in geographical focus from Delhi to Gujarat. Gujarat, located in western India. is an area where the production of asbestos cement generates economic growth. In Gujarat some people experience daily exposure to asbestos, either through working in the asbestos cement factories or through these factories' proximity to their villages. Nonetheless, occupational health and workers' rights do not have a high profile in Gujarat as they are undermined by Gujarat's political culture, officials' attitudes and the desirability of industrial investment. After the introduction of the New Industrial Policy in 1991 (which aimed at creating economic reform in the industrial sector), the state of Gujarat aggressively promoted and facilitated new industrial development through concessions and subsidies (Hirway and Mahadevia 2004). In 2007, Gujarat had nine cement factories using asbestos, some of which employ dry processing methods, while most used wet processing. The Director of Industrial Safety and Health and the Chief Inspector of Inspection

31 See, however, recent work by Gaitonde and Dutta (2008) which focuses explicitly on workers and is exceptional in this regard.

(construction) for the Gujarat State, Mr Joshiyara claims that 40 years of factory medical records – which include pulmonary function tests, blood and urine tests and chest x-rays – demonstrate the success of wet processing techniques and personal protective clothing: 'Because of all of this, we have had no cases [of asbestos disease] in the last three years'. Based on these records, the Department of Industrial Health and Safety identified only two cases of asbestosis in 2002/2003.[32] The State of Gujarat is proud of this safety record. Gujarat is – in the view of the Certifying Surgeon for the IHL – 'number one in terms of safety'.

In Gujarat, officials' disregard for workers' health is further reinforced by religious viewpoints. Mr Joshiyara firmly believes that occupational health levels are influenced by god. Gujarat has had no major industrial accidents, because 'God is here in Gujarat, who takes care of all these things'. To date, he argues, disaster management has not included spirituality and this is a 'missing dimension'. Spirituality makes a worker 'more aware of your soul who is running your body and taking care of your own health'. If workers and industry 'believe in god, trust in god and work with god, then production, health and safety would be in a good condition'. Such an understanding of spirituality places the onus on the workers to be 'well aware' and to ensure that accidents do not happen. Telepathy should enable workers to anticipate disasters and take preventative action. Workers should thus strive to achieve a mental balance and supreme energy. Termed 'Disaster Management with a new and unique approach', this ensures that workers are held responsible for their illness.

Overall, there is an official denial of workers' health issues. Bharuch houses one of the biggest industrial units in India and Everite's asbestos factory is based here. With the help of Mr Gamit, the Deputy Director for the Department of Industrial Safety and Health in Bharuch, I was able to visit. Everite's factory manager, like the government officials described above, argued that 'if asbestos is safely produced, then there are no problems'. Over the past 15 years, he reported no sick workers and no complaints. Demonstrating his supreme confidence in asbestos, he took us into the factory – where several young bare-chested men were weaving strings of asbestos yarn into ropes without gloves or masks – and fetched a handful of asbestos fibres for us to see. Throwing this onto the ground, he reached into his pocket with the same (unwashed) hand and passed us all cotton masks for our mouths. Alongside us, the storage drum for the glycerine-based wetting agent was empty and clearly not in use. This contravened the Gujarati Education and Labour 1967,[33] but concerned neither the factory manager nor Mr Gamit, the official state factory inspector.

Unlike many other state officials interviewed, Mr Gamit believes that asbestos is dangerous. He is acutely aware of the politicised nature of asbestos production

32 One Gujarat doctor argues that he 'cannot expose the government', but that he has come across more than 10 cases of asbestosis in the past few years.

33 Gujarati Education and Labour 1967 Schedule XVII specifies in relation to asbestos: the number of workers be minimised the activity be clearly demarcated and indicated by warning signs, exhaust ventilation be installed, protective clothing and breathing apparatus provided, the regular testing of ventilation equipment, separate accommodation for personal clothing, washing facilities, a prohibition against the employment of young people and smoking, and regular air monitoring (A-252–A-258).

and that developed countries 'get themselves safe while sending hazardous industries to developing countries'. Although unusual for a government official, he has an internationally-influenced understanding of asbestos health and politics. Officially he is responsible for supervising its use in Bharuch, but he lacks the scientific equipment to monitor airborne fibres. At Everest, however, he condoned the obvious flouting of safety regulation. This lack of concern is related to India's 'unofficial' policies. The flouting of regulation is a widespread and well-recognised feature of India's industrial development (Dupont 2005; Joshi *et al.* 2006). 'In the Indian context, some things have no relevance' said Brigadier Sethi, the Chairman of the Asbestos Institute, during an interview in Delhi. He continued

> *the mistakes [made by European countries] stem from the use of blue and brown asbestos which were used during the period of ignorance with high concentrations. But now levels of workplace exposure are controlled. There were no precautions and people used the material very freely. Now people understand and precautions have been taken. India's environmental pollution [control] is very advanced and based on international levels. No asbestos is seen in the entire factory, no-one touches it.*

Brigadier Sethi's comments are clearly about ideal conditions ... As this example shows, in practice workers are exposed to asbestos and management disregards their safety. Indeed, as Mahesh Pandya, an NGO worker, pointed out, monitoring is, in effect, a means of protecting the industry. For example, workers' complaints to the Pollution Control Board are seldom investigated as officials accept bribes from factory managers. Even if a factory is 'officially closed', a promissory note explaining how the problem will be addressed is sufficient to revoke the closing order. In practice, work continues as normal.[34] Companies considered to be polluting submit Environmental Audits every six years. But it is the act of monitoring – rather than the content of the reports – which has significance. Once submitted, these Environmental Audits are not scrutinised. This enables the Gujarat Pollution Control Board to comment that despite receiving over 700 Environmental Audits, there have been no irregularities and no need for follow-up action. Brigadier Sethi is therefore partly correct when he argues that 'in the Indian context, some things have no relevance'. These things are workers' exposure to asbestos, fulfilling legislative requirements, monitoring of the environment and industries' commitment to safe production techniques. These are all symbolic performances in which the 'appearance of doing' matters. Ultimately this facilitates economic growth at all costs and is, in effect, a deliberate flouting of regulation at State level which works in conjunction with the National Government's determination to define asbestos as safe, and to limit the recognition of asbestos-diseases in its pursuit of economic growth. As Mr Mehta, retired Justice from the High Court of Gujarat explained:

34 Anderson and Ahmed (1996) note however that the Gujarat High Court has closed polluting chemical factories, stopping water and electricity provision. These factories were obliged to pay workers throughout the closure, to ensure the immediate cessation of pollution and to improve their ecological impact.

> *The argument from the government usually is development and they use the word sustainable development, but the emphasis is on development. Their usual argument is that if there is development, then there will be employment, production and generation of the benefits of development. And the government will for some time condone the breeches. That is how things are happening. They say that we don't have the option to develop or not to develop. For example, if the Blue Lady had not come to India it would have gone to China and many other ships would be diverted to China. Ship-owners would think that China is the place where there would not be difficulties and if you were to compete with China, we would have to compete on all aspects … So we have to make sacrifices for development. The argument boils down to: do we want to develop or not develop? If you to by all these [occupational health] standards, you can't develop.*

The alliance between the Indian Government and corporate business and their ability to reach a compromise – at the expense of the workers – also influences BANI's mobilisation which centres on international protests and overlooks grassroots organising. As demonstrated in the following case, not all Indian anti-asbestos activism is conducted in this style. In 1997, the workers from Digvijay Cement Company came to Paryavaran Mitra, an NGO which facilitates villagers' participation in Environmental Public Hearings,[35] complaining about asbestos cement roofs and associated breathing problems. Paryavaran Mitra sought to help the workers through legal proceedings or *'suo-moto'*.[36] It did this, not by becoming engaged as a political actor, but by guiding the workers in media presentations and showing them how to write a letter to the High Court. Echoing BANI's style of activism, this allowed the NGO to be involved in the mobilisation, without direct associations. The crucial difference between BANI and this NGO is, however, that Paryavaran Mitra worked – not with international activists whose interests wax and wane according to diverse political cycle – but with local people and workers. Paryavaran Mitra focused on developing grassroots movements which allowed people to control their own lives. Its main aim is the transfer of technical scientific knowledge to people and, through creating greater awareness, the implementation of environmental reform. Paryavaran Mitra thus helps villagers and people wishing to protest by offering explanations of technical scientific material coupled with guidance on mobilisation strategies and legal procedures.

On the 8 October 1997 Anilkumar Mohanlal Poddar – having been informally assisted by Paryavaran Mitra – sent a letter to the Gujarat Pollution Control Board[37] stating that Digvijay Cement Company's manufacture of asbestos products was causing serious health hazards to workers and nearby residents.

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35 In 1997 the Indian government specified that newly establishing industries had to hold an EPH before getting environmental clearance (under the Environment Protection Act, 1986).

36 Suo Moto is a legal provision which allows the judiciary to pick up on any issue reported in the media and file a case which can later become a Public Interest Litigation or PIL.

37 This organisation provides environmental clearance before factories are established and monitors them once in operation. They are, in principle, ways in which community and worker participation in encouraged and can be seen as spaces in which democracy is enacted.

Poddar argued that asbestos and cement particles were visible in the air and in the drinking water provided by Digvijay. Poddar's Affidavit also asserted that waste asbestos was dumped on factory grounds without adequate precautions, land was being denuded, workers were not informed of their company medical results and finally, as a result of all these factors, that people residing in the vicinity of the factory were prone to asbestos diseases. Indeed, Poddar's own father, employed by Digvijay, had died of lung cancer in August 1996. Other workers and residents of Ranip town supported Poddar's claims and wrote accompanying letters requesting immediate action.

Digvijay Cement declared Poddar's allegations to be 'completely baseless' and stemming from 'spite and vengeance' because Digvijay had dismissed his father for 'gross and serious irregularities'. Its Affidavit-In-Reply stated: 'In our factory, we are maintaining the safe dust exposure limits as prescribed under the Factories Act, 1948. Hence there is no chance at all for the persons residing in the vicinity/colony to contact diseases like cancer or TB due to the exposure of asbestos/cement dust'. Digvijay Cement argued that the wet manufacturing process was completely automated and foolproof, with no fibres becoming airborne. Similarly once the asbestos has bonded with cement, there was no possibility of exposure to asbestos fibres. Digvijay's annual medical examinations, coupled with the fact that workers undergo chest x-rays every three years and its compliance with the Factories Act, means that 'the view that [the] industry of the answering respondent can cause air pollution and diseases like lung cancer is absolutely theoretical and speculative …'

As can be seen, workers' knowledge of asbestos diseases is pitted here against safe production procedures and regulation. The legal case involved evaluating one set of understandings against another. Clearly a decision had to be taken about whose views held the most weight. Perhaps not surprisingly, the answer was sought in science. The judge had the discretion to invite someone to be *'Amicus Curie'* or 'Friends of the Court' and to participate in the case, and coincidentally Paryavaran Mitra was selected for this role. As *Amicus Curie*, the NGO 'requested hiring a national institute to prepare a report'. Despite the fact that Digvijay Cement reacted strongly against such an external assessment, the NIOH was contracted by the Gujarat High Court to assess the health hazards. It conducted air samples at three sites around the cement factory and concluded that: 'Fibre concentrations in the vicinity of the factory were very low and adverse health effects i.e. asbestosis, lung cancer and mesothelioma of pleura and peritoneum have not been confirmed at these levels' (NIOH 1997: 2).

Paryavaran Mitra immediately contested this report as it was seen to 'favour industry'. It argued that the report was neither 'reliable nor scientific' because it did not include factors such as wind direction, and other micro-meteorological factors (Pancholi 1997). Although the NIOH had taken samples over a 24-hour period, it had done this 20–30 feet about the ground level and not, as Paryavaran Mitra pointed out, at breathing level. It had also not investigated water and soil

17 Via Campesina 'Peasants Mobilize Against the 4 year Term to Identify Transgenics' www.viacampesina.org/main_sp

contamination and had overlooked the production process, ignoring cutting and grinding activities. The High Court was however happy to accept the NIOH.

The NIOH report replicates other patterns of regulation and control of asbestos pollution in that an exercise monitoring air particles took place and in that Digvijay Cement was accorded the responsibility of monitoring. Both these two activities allow the factory continue operating as normal. The High Court ultimately decided that the grievance voiced by Shri Anilkumar Poddar 'does not appear to be completely acceptable'. It added, however, that the Gujarat Pollution Control Board should regularly inspect the premises and advise on necessary remedial measures (order dated 20 April 1999 for SCA/8617/1997 special civil application no. 8617 of 1997, Suo Motu versus Gurarat Pollution Control Board). As is clear from this and other examples discussed above, the primary focus is on a symbolic process of monitoring, with no attempt by the state to question or challenge any of the assumptions which frame the manner in which monitoring is carried out. Instead, monitoring is seen as an end in itself.

Paryavaran Mitra is an activist-based organisation which comes under constant pressure from other NGOs, from Government and from Industry to focus on service delivery. Indeed, in contrast to BANI in Delhi, members of Paryavaran Mitra have not received any direct threats on their lives, families or work, but their position is not helped by having links with foreign organisations. Whereas BANI activists were protected in Delhi through their international links, in Ahmedabad international connections are seen as a disadvantage to activists. NGOs which survive through foreign financial support are labelled as 'not helping', as 'misleading the people' and as 'obstacles of development'. Because it is afraid that it will be labelled as 'anti-government' or 'anti-development', Paryavaran Mitra does not engage directly with BANI and is not a registered member of BANI. It does, nevertheless, have networks with other organisations which support BANI and relays any information it may have for BANI to use.

Raghunath Manavar, who runs an Ahmedabad NGO, also seeks to mobilise workers rather than follow international activist-orientated trends. He created the Occupational Health and Safety Association as a response to his personal experiences as a worker in Ahmedabad's thermal power plant. When he realised that his colleagues were dying 'day by day', he set about trying to understand why. He met with the NIOH director who explained the dangers of asbestos fibres. Armed with this knowledge, Raghunath Manavar tried to get his fellow workers properly diagnosed, but found that doctors were not willing to diagnose occupational diseases. Instead, when undergoing medical examinations, workers were x-rayed, questioned about their smoking and drinking habits, and then diagnosed with tuberculosis. In order to counter the superficial and purely bureaucratic nature of these monitoring processes, the Occupational Health and Safety Association has undertaken medical training for workers. It shows them how to look for clubbing,[38] how medical examinations should be done for occupational diseases and emphasising the importance of work histories. It has

38 A thickening of the fingers and a softening and rounding of the fingernails associated with, asbestos and other heart and lung diseases.

filed a number of cases in the Supreme Court and in Gujarat High Court, claiming that, to date, it has proved 85 cases of asbestos-related diseases. This is, however, a pyrrhic success as only two of these identified cases have officially been recognised by the Gujarat State and have received state compensation. The Occupational Health and Safety Association operates on a shoestring (with the office located on Manavar's verandah) and has enormous difficulties accessing funding. This is, in part, because it is not officially registered as an NGO. Despite submitting an application over 18 months ago, it has had no response from government. This delay echoes the complicated procedural processes associated with claiming compensation as a result of occupational exposure. Both provide an indication of Government commitment to occupational health issues.

Raghunath Manavar, like Paryavaran Mitra, has developed his anti-asbestos stance in relation to workers' health, because of his exposure to local political and economic issues and through his own experiences of Ahmedabad's environment issues. Both NGOs have focused their campaigns on mobilising villagers and workers affected by asbestos. This is in stark contrast to the activists working in New Delhi. As a result, these activists have access to very different resources and networks which include villagers, workers, local authorities, the local media (which is more accessible than in Dehli), lawyers and researchers. In this regard, their strategy is very different from that of BANI. They are, as Martello and Jasanoff would argue, being driven by the 'local', by emotional commitments to people, places and livelihoods (2004). It is their 'situated knowledge' which leads Raghunath Manavar and Paryavaran Mitra to challenge the Gujarat state and businesses on the health-related aspects of asbestos. Nonetheless, as is also evident in the above discussion, the discursive style and the terms in which these debates are carried out are based on scientific knowledge. Government forums for addressing occupational health issues do not allow people's own situated knowledge to be ranked alongside scientific knowledge such as that produced by the NIOH.

Grassroots mobilisation does not however occur in isolation and there are some links between the different kinds of campaigning. Paryavaran Mitra has informal relations with members of BANI's network, with information being fed both ways. Raghunath Manavar has been involved in some of BANI's activities, including attending meetings in Delhi and the high-profile Global Asbestos Forum held in Japan in 2004. These different strategies have not, however, resulted in different successes. As indicated in the paper, the Indian Governments' determination to frame asbestos debates in terms of safety and regulation and to define diseases primarily in terms of asbestosis severely limits all possibilities of mobilisation. In addition, processes of governance focusing on monitoring undermine people's health concerns and, coupled with complex bureaucratic procedural processes, continue to make it difficult for workers to claim. Caught inbetween these two sets of negotiation is the NIOH, which seeks both to meet workers' needs and to fit within the Government's desire to facilitate economic growth. Other local activists in Gujarat are not caught in the middle but are equally constrained in their ability to challenge political structures and decision-making. Ultimately, the way the debate is framed, with the emphasis on science and expertise, and the anti-development label attached to local activists mobilising against asbestos, inhibits the development of 'vertical' political links with government actors. Local

mobilisation structures suffer from the same problem as the global structures that BANI is involved in: while they have strongly developed 'horizontal' networks and relationships, their access to 'vertical' political relationships are highly restricted.

6 Conclusion

Liberalisation, privatisation and globalisation have strongly shaped the nature of citizenship, health and social mobilisation for Indians. In seeking to facilitate economic growth, foreign investment and international exchange, the Indian Government has avoided regulating capital and industries (Lipschutz 2004). Widespread industrialisation coupled with the development of special economic zones has not, however, been accompanied by the necessary growth and sophistication of India's Occupational and Environmental Health domains. Instead, the increasingly deregulated and globalising environment has lead to a situation where it falls to citizens to ask critical questions about the nature of economic growth and at whose cost this occurs. Given the absence of governmental intervention in occupational health and environmental pollution, NGOs such as BANI, Paryavaran Mitra and the Occupational Health and Safety Association have arisen (cf. Lipschultz 2004). That these activists and their organisations have been subject to control by the state through conventional and innovative means such as threats of western bias, bureaucratic slowness, institutional fragmentation, and by framing asbestos and risk as controllable processes, demonstrates the governments' prioritisation of economic growth over health-related issues.

The examples discussed in this paper show that questions of identity are critical to the mobilisation process. The paper began with a quote from Appadurai, suggesting that transnational civil society is simultaneously a project, a process and a space. In seeking to show how this plays out in India, the paper has argued that anti-asbestos mobilisation occurs across national, local, state, transnational and global spaces. Some Indian campaigners, particularly those based in Delhi, identify much more closely with transnational, global actors. For these actors, the process of building alliances, creating networks and struggle means that geographical, political and cultural differences between New York, London and Delhi are compressed. This is, as Heater would argue, citizenship operating horizontally and internationally (2002: 5). Other activists have identified more closely with workers and with local conditions of oppression, locating their practices of citizenship both horizontally and nationally (Heater 2002). For these anti-asbestos activists, different networks and alliances come into play, often with an explicit rejection of the globalised toxic hazards campaign. Forging ahead in more isolated contexts and seeking to influence local political processes – rather than global ones – the geographical, political and cultural differences between Ahmadabad or Bharuch and New York or London are massive. Nonetheless, as Yuval Davis (1999) has commented, it is important to realise that these activist identities are, despite apparent differences and fragmentation, co-constructed and all these actors are simultaneously both enormously distant from one aspect of mobilisation while being intimately connected to another. The cosmopolitan and globalised nature of BANI's activism is, in part, possible because of the organisation's remoteness from workers. Similarly, Raghunath Manavar's

association with the workers is possible precisely because, as an uneducated former worker, he cannot engage with the international, globalised elite of transglobal toxic activism. Ironically, this means that the co-construction of activist identities expands the gulf between cosmpolitanised BANI activists and invisible sufferers of asbestos-related diseases. It compresses some transnational geographical, political and cultural identities at the expense of local and national regional, ethnic, caste (and class) and educational differences.

Lipschutz argues that, despite desiring change from states, NGOs and other civil society organisations tend not to challenge the structures of the state. Their more conservative stances allow them to avoid charges of radicalism, socialism or terrorism, but means that their influence on the state is limited (2004: 231). This research shows the extreme difficulties NGOs experience when trying to challenge the state and when aiming to move beyond compromise. The regulatory power of the state to define how asbestos is to be framed enables it to 'shut out' opposition. The state is, of course, not the only actor and it increasingly pressurised by private companies which seek favourable climates for economic investment and by civil society and NGOs with a social justice framework (Keohane and Nye 2000). Nonetheless, as indicated in this paper, the work of BANI and other organisations is, in effect, too 'fragmented and diverse to wield significant structural power' (Lipschutz 2004: 231). This fragmentation results, however, not only from the manner in which the state responds to social mobilisation, but also from the ways in which activists and other agents of mobilisation are situated within global 'spaces' and physical localities. While drawing on global connections is an effective means of mobilising for Delhi-based activists, it undermines similar work by NGOs in Ahmedabad. One central feature which makes activism and mobilisation extremely difficult in both places is the absence of workers who remain unable to challenge either the state or the companies they work for. Until very recently (Gaitonde and Dutta 2008), workers have been missing from the campaign – as victims of asbestos disease, as grassroots organisers, as campaigners and as active agents on the shop-floor. While asbestos movements seek to shape workers as rights-claiming citizens, the state and industries continue to define them as inconsequential and invisible and, in so doing, undermine anti-asbestos movements' abilities to translate their vision and global processes into meaning and accountability for ordinary citizens.

To what extent is this disconnect a product of BANI's making, and to what extent is it shaped by the structural and political opportunities in a globalising world? BANI was created out of cosmopolitan, international connections. The movement established itself through transnational horizontal connections and it was these connections that provided BANI with insights into the political and economic processes taking place in India. Although BANI has long recognised the need to identify workers, it has only recently expanded its activism in this area. The disconnect thus results partly from BANI's agency and the choices that these activists make. However, as the examples from Gujarat show, a different sort of mobilisation might not have been possible for BANI. The context in which BANI activists mobilise is one which frames political opportunity in certain kinds of ways and, in so doing, removes other possibilities. Working with villagers and with people regularly exposed to asbestos would have required BANI activists to sever their international networks (because of the anti-development stigma associated

with these connections). It would thus require them to traverse different kinds of spaces and to establish horizontal networks within India. Not only would such networks challenge their own identities and positionalities, it would undermine the international networks and political processes which inspires BANI. Ultimately, it is not possible for BANI to mobilise locally and internationally simultaneously and the reasons for this lie partly in the nature of BANI as an organisation and partly in the nature of political opportunity in India.

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