



# Dusty roads and disconnections: Perceptions of dust from unpaved mining roads in Mongolia's South Gobi province



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## ABSTRACT

South Gobi province is at the center of Mongolia's mining boom, where companies began exporting minerals over dirt-track roads in the early 2000s. This paper examines recent controversies surrounding road dust near the Oyu Tolgoi copper–gold mine, the so-called coal road from Tavan Tolgoi mines, and the Chinese border. At the time of the research, local residents, particularly nomadic herders, were concerned that dust produced from unpaved mining roads was coating the pasture, causing illnesses among livestock, and endangering their livelihoods in the region. The presence of dust rendered mining an uncomfortably intimate experience as state and corporate actors negotiated responsibility for infrastructure development. The paper builds on the concept “technologies of distanciation” to reveal the complex ways that dust from unpaved roads creates distances and disconnections between people, livelihoods, and landscapes, representing an enclosure of the pasture. Methods for the paper include interviews, focus groups, and participant observation conducted in South Gobi province and Ulaanbaatar in 2010, 2011, and 2012 as well as follow-up research carried out in spring 2015.

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*Before the mining boom, herders say the Gobi was clear and endless. Now, a fine dust coats the pasture near South Gobi province's unpaved mining roads. As mining trucks speed across the pasture, fragile desert soils are ground to powder. Dust plumes rise behind trucks, momentarily blinding drivers and nearby herders, livestock, and wildlife. Everyone coughs—a symptom of “dust filled lungs” (uushig toosjikh). When livestock are slaughtered, their internal organs are discolored and plastic in texture. Herders throw these organs away and wonder what is happening to their own kidneys, livers, lungs, stomachs, and hearts. Dust encloses the pasture up to several kilometers from each unpaved road, forcing families to shrink herds as the amount of food livestock provide decreases with each discarded organ. As lines of dust cut across the pasture, unease circulates. Responsibility for paving the roads remains unsettled, and dust clouds the promises that mining brings development.*

—Fieldwork observations, 2011, 2012

*But you know that [with] every development, before the development [there is] the dust.*

—Government Official, Ministry of Nature, Green Development, and Tourism, 2012

*Dust is a metaphor for the transition from the old to the new.*

—Paraphrased from a discussion with a former Rio Tinto Community Relations Representative, 2014.

## 1. Introduction

Throughout Mongolia, patterns of interweaving unpaved roads are common. Unpaved roads fragment pasture and habitat, compact soil, increase water runoff, and remove surface soil, processes that scholars and herders argue harm Mongolia's nomadic herding economy and wildlife (Sneath, 2003; Li et al., 2006; Damdinsuren et al., 2008; Keshkamat et al., 2012, 2013). A relatively large literature examines the sources and movements of Gobi dust (see Natsagdorj et al., 2003; Chung et al., 2005; Batjargal et al., 2006; Zhang et al., 2008; Lee and Sohn, 2011; Lee et al., 2012). The paragraph above illustrates how residents describe mining road dust in South Gobi province. Unpaved roads from multiple mines interlace across the desert as they race to the Chinese border. While recent efforts have paved some of these roads, during the height of construction from 2011 to 2012, unpaved roads raised serious concerns among local residents, particularly nomadic herders, who questioned their ability to remain in the area tending livestock as fine road dust infiltrated their daily lives.

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Because of mining's recent and rapid rise in Mongolia (see Jackson, 2015), potential consequences of dust from unregulated mining roads have yet to be addressed in the literature. While state and mining company officials at times argue dust is a sign of development, no one denies the profound impacts of dust on people and animals living in mine-affected areas. As unpaved roads penetrate and permeate Mongolia to facilitate mining development, trucks pulverize earth into dust that penetrates and permeates the lives of South Gobi residents. During fieldwork from 2011 to 2012, the Oyu Tolgoi copper–gold mine and Tavan Tolgoi coal deposits were at the heart of road dust controversies. The Landsat images below show increased road development near Oyu Tolgoi (see Figs. 1 and 2).

Pedersen and Bunkenborg (2012) have explored how unpaved roads in eastern Mongolia act as “technologies of distantiation,” disconnecting local residents from Chinese oil company employees. Technologies of distantiation speak to broader questions of how people's relationships to place are changing in Mongolia due to the growth of extractive industries. For example, how does the materiality of unpaved roads influence local residents' perceptions of and relationships to place as industries expand? Building on Pedersen and Bunkenborg (2012), I argue that dust from unpaved mining roads also creates disconnections. Specifically, road dust brings local residents into intimate contact with processes driving Mongolia's mining industries, distancing them from livelihoods and landscapes. As mining development expands, dust becomes political, emerging as a focus of anxieties about environmental and economic changes. Dust in South Gobi thus presents a compelling lens to examine tensions over mining development.

To demonstrate how dust changes relationships to place, I elaborate on how the materiality of roads and particularly dust become technologies of distantiation with the power to transform how people relate to and understand place. Next, I discuss the state of road building in Mongolia, including why unpaved roads have proliferated in Mongolia's mining corridors and how responsibility for paving mining roads in South Gobi remains contested. Then, I examine the local effects of road dust, including how dust shapes memories of the past, daily tasks, and health to illustrate how local residents describe dust as something that has transformed their relationships to place, often distancing them from their livelihoods.

The material for my arguments is drawn from ten months of dissertation fieldwork in Mongolia conducted between 2010 and 2012, ongoing communications with non-governmental organizations (NGOs) and company staff, and one month of follow-up research conducted in 2015. I focused on infrastructure development of the Oyu Tolgoi mine located in Khanbogd *soum* in South Gobi.<sup>1</sup> While not initially on my research agenda, dust emerged consistently in discussions with participants, particularly following open-ended questions about memories of landscapes before mining and how mining has affected (*nuluuluh*) their livelihoods. The research timing is significant because it largely took place while infrastructure was under construction. From 2011 to 2013, eighty-four semi-structured interviews were conducted with key informants and thirty interviews were carried out in 2015. I made several short trips totaling one month to Khanbogd, and shorter visits to Dalanzadgad (South Gobi's capital), *soums* surrounding Khanbogd in South Gobi (Bayanovoo, Manlai, Tsogttsetsii), and Khatanbulag in East Gobi. In South Gobi, I interviewed herders, *soum* center residents, local government officials, and mining company workers. In Ulaanbaatar, I interviewed company staff, consultants, government officials, former residents, and NGO leaders. I led four focus groups with residents in Khanbogd and other *soums* and one with young professionals in Ulaanbaatar. In addition, I conducted participant



**Fig. 1.** A Landsat image from 2000 of the Oyu Tolgoi site. The lines shown are from ephemeral streams. Data available from the U.S. Geological Survey.



**Fig. 2.** A Landsat image of the Oyu Tolgoi site from 2013. The lines illustrate increased truck traffic between *soum* centers, mines, and the border. Data available from the U.S. Geological Survey.

observation with NGOs active in the region, who advocate for regulation of mining to ensure nomadic herders' rights to pasture resources. While in Ulaanbaatar, I also attended mining-related events and collected documents.

### 1.1. Roads and dust

Numerous scholars argue that roads are designed to increase connectivity between the state and outlying populations, while integrating peripheral regions into the national economy (see

<sup>1</sup> A *soum* is an administrative district within an *aimag* (province).

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