GLENCORE'S OIL OPERATIONS IN CHAD:

LOCAL RESIDENTS INJURED AND IGNORED

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Glencore's Badila Oil Field Wastewater basin Oil leak Direction of river flow = Pipeline River ✗ People injured and/ Road or livestock affected Betiman X 🗘 🛆 X Mbaiynang Dombogo X 🚵 📤 🗶 Karwa Bedar 🗶 🏠 Nya Pende tributary Bebala 🗙 🛆 📤 🗶 Ngarda Chad Logone Oriental province **☆** X Melom Wastewater Basin hya pende River **★** Koutoutou Pipe leak reported by local chief Badila Oil Field Nya Pende tributary Egypt Libya Niger Chad Sudan Nigeria South Central African Republic 2 km

Glencore's Oil Operations in Chad: Local Residents Injured and Ignored

SUMMARY

On 10 September 2018, residents of Melom, a remote village in south-western Chad, were nervous. It was the end of the rainy season and each day new rainfall added to the huge wastewater basin owned by PetroChad Mangara (PCM), a 100%-owned subsidiary of Glencore Plc, one of the largest natural resource companies in the world. The wastewater basin held "produced water," a by-product of crude oil production. It had been built near to the village less than a year earlier, but already its earth banks had begun to leak.

That night the earth bank supporting the water basin collapsed and a wave of destruction swept across the surrounding landscape until the wastewater poured, unchecked, into the local Nya Pende River. The river was crucial for daily life. Thousands of downstream local residents used it for bathing, fishing, washing and to water livestock and crops.

The situation was further aggravated two weeks later, according to local residents interviewed by RAID. A customary chief and five residents close to the concession told RAID that on or around 26 September 2018 the oil feeder pipe leading from Glencore's Badila oil concession to the main Chad-Cameroon pipeline was leaking crude oil and necessitated repairs¹. The location of the leak was only a few meters from the Nya Pende River which alarmed the chief. When RAID later requested further information about this spill from Glencore (see below), the company strongly denied any "recordable pipeline leaks".²

In the days and weeks that followed the wastewater spill and the crude oil leak reported by the chief, dozens of local residents suffered physical injuries including burns, skin lesions, and pustules on the skin. Others complained of blurred vision, stomach aches, internal pains, vomiting and diarrhea after using, and sometimes drinking, the water from the river. Some required hospitalization, including at least two children who suffered serious skin lesions and pustules after bathing in the water.

During research conducted by RAID in the affected villages in June 2019, at least 50 local residents reported physical injuries in the weeks that followed the wastewater spill that they believed were linked to the river water. A number of people reported noticing that the surface of the river water was "oily" and had a peculiar odor. One victim who had gone to wash his clothes shortly after both incidents said, "The water was oily that day. The oil was on the surface. Before, the water wasn't like that."

"THE WATER WAS OILY THAT DAY. THE OIL WAS ON THE SURFACE. BEFORE, THE WATER WASN'T LIKE THAT."

- LOCAL RESIDENT, CHAD

Livestock were also affected and 15 individuals reported deaths of goats, cattle, pigs and sheep. One local farmer interviewed by RAID said that all of his livestock— 34 pigs, goats and sheep— died in the weeks that followed the wastewater spill. He said that when he butchered the animals to eat, their internal organs were black and had a putrid smell.⁴

This briefing sets out how Glencore failed to properly address the leak at its wastewater basin, to adequately warn local residents about the wastewater spill before and after it occurred, to assess or alleviate the consequences, and to investigate the injuries that local residents reported in the days and weeks that followed the spill and the crude oil leak reported by local chief and residents. Instead, Glencore largely ignored the reports of injuries and the death of livestock, both of which should have sent alarm bells ringing.

¹ Interview, local residents, Koutoutou village, Logone Oriental province, Chad (25 June 2019); AJTZP interview, Beminda customary chief, Beminda village, Logone Oriental province, Chad (6 October 2018) and (3 March 2020).

² RAID meeting with Glencore officials, London, United Kingdom (11 October 2019) and Glencore's response letter dated 25 October 2019, on file at RAID's office, (Glencore's second response letter).

³ RAID interview, resident of Karwa, Karwa village, Logone Oriental province, Chad (21 June 2019).

⁴ RAID interview, Karwa customary chief, Karwa village, Logone Oriental province, Chad (21 June 2019).

In its company information, Glencore says that "We are responsible for our impacts on people, society and the environment."5

"WE ARE RESPONSIBLE FOR OUR IMPACTS ON PEOPLE, SOCIETY AND THE **ENVIRONMENT.**"

- GLENCORE

The manner in which Glencore dealt with the wastewater spill and the reported crude-oil leak at its Badila oil field in Chad illustrates that such claims are hollow. To alleviate local concerns and to adhere to the standards Glencore has committed to, including the United Nations Guiding Principles on Business and Human Rights,⁶ Glencore should urgently conduct a thorough, transparent and independent investigation into the water quality, the injuries, and the sudden death of livestock, and, dependent on the findings, compensate local residents.

After RAID and Chadian civil society groups raised concerns in August and October 2019, Glencore said it was "committed to trying to understand the root causes" of the injuries and would "conduct further research and investigation into a number of areas, using independent resources and further engagement with communities

where required."7 At the time of publication of this report, Glencore said it had "appointed an independent consultant to conduct an assessment on ground water, river water and soil samples upstream and downstream" of the Badila concession and is "in the process of commissioning an independent Health Impact Risk Assessment."8 Yet, more than 16 months after the spill and the reported pipeline leak, it remains unknown what caused the dozens of physical injuries and the sudden death of livestock. Local residents interviewed by RAID were very clear: an unknow toxic substance in the water from Glencore's Badila oilfield caused their injuries.

METHODOLOGY

In June 2019, RAID conducted a 11-day field mission to villages near the Badila oilfield in Chad. RAID interviewed 116 people, including 106 local residents in 10 villages affected by the wastewater spill and customary chief and residents. RAID also interviewed local civil society organisations, and local medical personnel. This report also includes information from international medical experts who assessed photographs of dozens of the injuries.

Together with Chadian NGOs, Public Interest Law Center (PILC) and the Association des Jeunes Tchadiens de la Zone Pétrolière (AJTZP), RAID engaged in written communication about these matters with Glencore and, on 11 October 2019, a RAID team met with Glencore representatives at its London offices to further discuss the concerns.9



- 'Our Approach' (Glencore) https://www.qlencore.com/sustainability/our-approach accessed 4 March 2020.
- ⁶ The United Nations Guiding Principles on Business and Human Rights (UNGPs), available at https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr_en.pdf.

 ⁷ Glencore's second response letter (n 2).

- Glencore letter to RAID, signed by the General Manager of PetroChad Mangara Ltd (PCM), dated 6 March 2020 (Glencore's third letter).
- Correspondence between RAID and Glencore can be found on RAID's website at https://www.raid-uk.org/sites/default/files/raid-glencore_correspondence_redacted.pdf



Population 16 million



THE BADILA OILFIELD

The Badila oilfield is located 65 kilometres from Moundou, the second-largest city in Chad. The Nya Pende, a major river in the area, and its tributaries pass alongside the oil concession. According to local civil society, around 23 villages and towns, with a total estimated population of 18,000, are located in a 13-kilometre diameter of the oilfield. The Nya Pende River flows into the Chari and Logone rivers, which terminate in Lake Chad.

The local population near to Badila oilfield lives largely from subsistence farming and/or nomadic herding. There is limited access to education or health care. Between 2015 and 2019, Glencore built a primary school, rehabilitated a water tower and gave agricultural and writing materials to local communities as part of its community investment.¹⁰ The company also built two water wells and the Melom primary school as compensation for land it acquired for its operations.¹¹



187 (out of 189)

Illiteracy rate 78 %



Population living in poverty 38 %

CHAD'S RELIANCE ON OIL

The Republic of Chad is a landlocked country in central Africa. Its citizens are amongst the poorest in the world. Chad is ranked 187 out of 189 in the UN's Human Development Index. Oil is the major source of revenue for the Chadian government. In 2011, at the peak of the oil price, Chad's oil revenue made up 76 per cent of government revenue.¹²

In 2014, Glencore Energy UK Ltd, a subsidiary of Glencore Plc, lent to the state owned company Société des Hydrocarbures du Tchad \$1.45 billion, which added to its existing loan of \$600 million.¹³ In 2017, Glencore held about 98 per cent of Chad's external commercial debt, 14 which accounted for almost half of its total external debt. In June 2019, Reuters reported that Glencore had put its Badila oilfield up for sale. 15 At the time of publication, it had not yet been sold.

PRODUCED WATER IN CRUDE OIL EXTRACTION

Produced water is a term used in the oil industry to describe water that is produced as a byproduct during the extraction of oil. Most produced water requires treatment to make it suitable for recycling or beneficial use. Produced water varies widely in quantity and quality, depending on the method of extraction, type of oil and gas reservoir, geographical location, and the geochemistry of the producing formation. According to scientific experts, produced water is a global environmental issue due to its huge volume and toxicity that may pose detrimental effects on the environment.

PetroChad Mangara Ltd (PCM), Community Investment for the Badila project between February 2016 and August 2019, on file in RAID's office.
 PetroChad Mangara Ltd (PCM), Badila Community Compensation Projects between November 2014 and July 2019, on file in RAID's office.

¹² International Monetary fund (IMF), 'Chad: Selected Issues' (2016) IMF Country Report No. 16/275 <www.imf.org > TCD > 2016-8-chad-si-4-oil-sector-transparency-and-integrity accessed 3 April 2020.

la Initiative pour la Transparence dans (ITIE), 'Report EITI 2016 Chad (French)' (2018) https://eiti.org/files/documents/rapport_itie_tchad_2016.pdf accessed 3 April 2020.

Id International Monetary Fund (IMF), 'Chad - Joint World Bank-IMF Debt Sustainability Analysis' (World Bank 2019) https://eitibrary.worldbank.org/doi/book/10.1596/32580

ccessed 4 March 2020.

^{15 &#}x27;Glencore Puts Chad Oilfields up for Sale: Sources' Reuters (12 June 2019) https://www.reuters.com/article/us-glencore-oil-idUSKCN1TD1U4 accessed 4 March 2020.







Destruction caused by the wastewater spill on 10 September 2018.

GLENCORE OWNERSHIP: SWITZERLAND AND THE UK

Glencore Plc (Glencore) is a multinational commodity trading and mining company listed on the London Stock Exchange in May 2011. It is incorporated in Jersey and headquartered in Baar, Switzerland. Glencore is the parent company of Glencore UK Limited, which is incorporated in England and Wales and has offices in London. Glencore UK Ltd manages Glencore's energy department, including its oilfields in Chad.

In 2012, Glencore acquired a first 35% interest in the Badila and Mangara oilfields in Logone Oriental province in southwestern Chad, then owned by Caracal Energy

Plc.¹⁶ In July 2014, Glencore bought Caracal Energy, increasing its stakes from 35% to 85%,17 while the stateowned oil company Société des Hydrocarbures du Tchad (SHT) retains the remaining 15%. The Badila concession is operated by PetroChad Mangara (PCM), wholly owned by Glencore. The Badila oilfield is part of the Mangara-Badila oilfields in the Doba oil basin. The Mangara-Badila oil fields account for 11% of Chad's oil revenues. 18 In 2018, Glencore produced nearly 2.8 million barrels of oil in Chad, mainly from the Mangara - Badila oilfields. 19

¹⁶ Glencore acquired a 25% interest from caracal and under the terms of a separate agreement between Glencore and SHT, Glencore acquired a further 10%, with SHT retaining 15%. See Caracal Energy Inc., 'Caracal Energy Inc.: Completion of Farm-In Agreement with Glencore' (Investegate) <a href="https://www.investegate.co.uk/caracal-energy-inc-/rns/coracal-energy-inc-

pletion-of-farm-in-agreement-with-glencore/201306170700051329H/> accessed 5 March 2020.
'Glencore Completes Acquisition of Caracal' (Glencore) https://www.glencore.com/media-and-insights/news/Glencore-completes-acquisition-of-Caracal accessed 5 March 2020; 'UPDATE 1-Glencore to Buy Chad Oil Firm Caracal for \$1.3 Bln' Reuters (14 April 2014) https://uk.reuters.com/article/glencore-caracal-energy-idUKL-6N0N62TX20140414 accessed 5 March 2020.

Initiative pour la Transparence dans (ITIE) (n 13) p.25.
 'Ask Glencore: Chad' (Glencore) https://www.glencore.com/ask-glencore/Chad accessed 4 March 2020.

A WASTEWATER DISASTER **WAITING TO HAPPEN?**

The wastewater spill on 10 September 2018 was linked to a decision by Glencore to change the way in which it disposed of its produced water (a term used in the oil industry to describe water that is produced as a byproduct during the extraction of oil, also referred to as wastewater). According to scientific experts, produced water is a global environmental issue due to its huge volume and toxicity that may pose detrimental effects on the environment.20

Up until late 2017, Glencore had been using a combination of both re-injection and water treatment basins as part of an engineered wetlands system to dispose of its wastewater. The water treatment basin is a system where the produced water is transferred and treated through successive basins before it can be re-used or disposed of. Glencore used the water for irrigation of PCM's agricultural project area. ²¹ Re-injection, as the name suggests, is injection of the wastewater back underneath the water table.

In late 2017, Glencore stopped using the re-injection method and instead expanded its system of water treatment basins, ²² Re-injection is recommended by the US Environment Protection Agency, as it is considered safer for people and the environment. RAID received no answer to its question as to why Glencore had decided to shift away from the re-injection method in 2017.

After the spill, Glencore said the flooding of the basin was a "one-off" event. Nevertheless, the company bulldozed the area where the basin had stood and in correspondence with RAID, Glencore said that following the spill, it was using the re-injection method since early 2019 for all of its produced wastewater at the Badila oilfield. 24

THE WARNING SIGNS

In October 2017, as the level of produced water in the treatment basins increased, Glencore built a larger end-of-line basin to contain the increased volumes. It acquired a sizeable portion of land next to Melom village to accommodate the basin. A dispute arose concerning the land, as some residents of Melom argued that the land belonged to them and was to be cultivated, while Glencore believed that the communal land was not in use and was "bush" area. The dispute was resolved after the intervention of local authorities. As part of the agreement, Glencore built a rudimentary three-room primary school for Melom village in return for using the land to build the basin. 25

In November 2017 Glencore constructed a basin "using laterite containment berms for retaining the water [...] estimated at 85,000 cubic metres", 26 which is 85 million litres, the equivalent of 34 Olympic size swimming pools.



Basin overflow and pumping attempt, August 2018

In August 2018, in the midst of the rainy season in Chad, the pressure on the basin berms increased and the basin began to leak. According to two local customary chiefs, on 18 August, Glencore sought to convince communities to agree to a controlled release of the water into the river,²⁷ a request that was refused. Local customary chiefs interviewed by RAID said they had refused as Glencore provided no proof that the wastewater was harmless or that the Chadian Minister of the Environment had agreed to it. On 19 August 2018 a local civil society group, AJTZP, issued a press release,28 urging PCM and Glencore to address the situation. Glencore did not respond.

Utjok WR Siagian and others, 'Oilfield Produced Water Reuse and Reinjection with Membrane' (2018) 156 MATEC Web of Conferences, The 24th Regional Symposium on Chemical Engineering 08005, available at: https://www.researchgate.net/publication/323753204_Oilfield_Produced_Water_Reuse_and_Reinjection_with_Membrane.
 Glencore's response letter dated 6 September 2019, signed by the General Manager of PCM, on file at RAID's office (Glencore's first response letter).

²² Glencore's first response letter (n 21).
²³ U.S. Environmental Protection Agency, 'Study of Oil and Gas Extraction Wastewater Management Under the Clean Water Act' (2019) EPA®821@R19@001 < https://www.epa.gov sites/production/files/2019-05/documents/oil-and-gas-study_draft_05-2019.pdf> accessed 3 April 2020. Glencore's first response letter (n 21)

²⁵ RAID interview, Melom customary chief, Melom village, Logone Oriental province, Chad (25 June 2019) and RAID field visit, Melom village, Logone Oriental province, Chad (25 June 2019).

²⁶ Glencore's first response letter (n 21)

²⁷ RAID interview, Benadji customary chief, Benadji village, Logone Oriental province, Chad (21 June 2019); PetroChad Mangara Ltd (PCM), Forums, Public and Individual consultations for the Badila concession for 2017, 2018 and 2019, on file at RAID's office.

²⁸ Association des Jeunes Tchadiens de la Zone Pétrolière (AJTZP), Press release AJTZP/BE/SG/018 (19 August 2018).

²⁹ Glencore's second response letter (n 2)

³⁰ Glencore's second response letter (n 2)

On 20 August 2018, Glencore made a request to the Chadian Ministry of Environment to allow for a controlled release "to alleviate the strain on the containment berm of the basin by the very heavy rainfall".29 Two government delegations from the Ministries of Environment, Water and Fisheries and Petroleum and Energy arrived to assess the situation on 26 August 2018, but they did not approve the controlled release.³⁰ Glencore staff sought to pump water out of the basin into cisterns to release the pressure without success. RAID is not aware of any other steps taken by Glencore to avert the impending disaster. Glencore provided no indication in correspondence with RAID or during the meeting on 11 October 2019 that it took any steps to warn local residents about the potential consequences.

POSSIBLE OIL LEAK?

A customary chief of villages close to the Badila operations told RAID that on or around 26 September 2018 the oil feeder pipe leading to the main Chad-Cameroon pipeline was leaking crude oil.³¹ A Glencore crew was sent and asked five residents of that village to help. The pipe leak was only a few meters from the river, which alarmed the chief. They called on local civil society group ATJZP to evidence it. The ATJZP staff member who arrived later told RAID he saw evidence of digging and the soil by the pipe had clearly been turned. The local chief and the five residents told ATJZP that crude oil had earlier been leaking from the pipe.32

When RAID later requested further information about this spill from Glencore, it strongly denied any leak had occurred.33 In written correspondence requesting information about a leak on or around 26 September 2018, Glencore said "There have been no recordable pipeline leaks from our operations." Glencore stated the incident referred to by the local chief could have been routine repairs conducted on 16 and 17 August 2018 from which there was "no damage to the pipeline itself or any loss of hydrocarbon" at a location nearly identical to the leak reported by the local chief and residents. But the customary chief, local residents and AJTZP staff were adamant that the date of the incident they witnessed was 26 on or around September 2018.

INJURIES TO LOCAL RESIDENTS

PHYSICAL INJURIES

During RAID's research in Chad, at least 50 local residents reported having suffered physical injuries in the weeks that followed the wastewater spill which they attributed to the water. Women and children appeared to be particularly affected, reporting skin problems including burns, pustules, dis-colouration and itching. Others reported blurred vision, stomach aches, internal pain, vomiting, diarrhea and fever after using or drinking water from the river.

In each of the 10 villages downstream from the wastewater spill and the oil leak reported by the local chief and residents, hundreds of people were eager to speak to RAID about injuries they believed were connected to Glencore's activities at the Badila oilfield. Sometimes local residents queued up to have their stories heard. The information collected for this report is therefore likely only partial.

One of those most seriously injured was Jean, a 13-yearold boy from Karwa village, who had gone to the river downstream of the burst wastewater basin and the oil leak reported by local chief and residents, to wash himself and his clothes on or around 26 September 2018. He

While washing my clothes, I didn't feel anything peculiar on my skin. It was only when I returned home. The bridge [near where I washed] is only a 10 to 15 minutes' walk from here. I go often to the river, about once a week. [But] it was the first time I noticed the oil on the surface. I didn't drink the water, only washed myself with it. I went home directly afterwards. [When I got home], my skin was burning, it was very painful. It was the most painful event of my life. I couldn't even sleep.34

"[WHEN I GOT HOME], MY SKIN WAS BURNING, IT WAS VERY PAINFUL. IT WAS THE MOST PAINFUL EVENT OF MY LIFE."

- LOCAL RESIDENT, CHAD

³¹ Interview, residents, Koutoutou village, Logone Oriental province, Chad (25 June 2019); AJTZP interview, Beminda customary chief, Beminda village, Logone Oriental province, Chad (6 October 2018) and (3 March 2020).

as RAID interview, meeting with Glencore officials, London, United Kingdom (11 October 2019) and Glencore's second response letter (n 2).

 ^{*} Pseudonyms are used throughout to maintain privacy and confidentiality.
 34 RAID interview, resident of Karwa, Karwa village, Logone Oriental province, Chad (21 June 2019).





Jean's injuries, October 2018

Jean's mother attempted to wash his skin and to administer traditional herbs to help her son, but to no avail. According to a relative, "When she was done washing Jean, the pustules appeared even more and everywhere... His skin was peeling off." 35

By the next morning, Jean's body was covered in pustules and burn-like wounds. On or around 27 September 2018, with Jean in intense pain, his family brought him to the nearby St. Joseph health clinic.³⁶ Medical staff at the clinic said they had never seen wounds similar to Jean's and urged the family to take him the health district doctor, which they did. According to a family member who was present, "the doctor told us [the wounds] were because of crude oil."³⁷ He gave Jean pain killers, and urged the family to take him without delay to the general hospital in Moundou, some 50 kilometers away.

Unable to afford the transportation fees, the family scrambled to find the money, requesting assistance from the local chief (Chef de canton) and other members of their community. They urged the chief to call Glencore.

Since Jean had seen oil on the water and the doctor had said the cause of his injuries was "crude oil", the family wanted to inform the company and hoped for assistance. In the presence of a family member, the chief called a coordinator at Glencore, explaining Jean's injuries.

According to the family member present during the phone call, the Glencore staff member replied that there was "no evidence it was because of [the company] or the spill." The family also alerted local civil society group AJTZP.

The next day, having found some funds, Jean and his family arrived at the hospital in Moundou. But the doctor was at a loss as to how to treat Jean and urged the family to take him to a hospital in neighboring Cameroon, a journey the family could not afford. Jean was given painkillers and the wounds were cleaned. The doctor advised that Jean should stay under medical observation for a period of three-months, but after a short time the family ran out of funds and Jean was taken home. There was no money for any further medical treatment.

³⁵ Ibio

³⁷ RAID interview, resident of Karwa, Karwa village, Logone Oriental province, Chad (21 June 2019).

³⁸ lbi

It took months for Jean's body to heal. When RAID met him in June 2019, the scars on his body were still visible. The young boy was withdrawn and said he continued to suffer. A relative said, "he only hides and cries." ³⁹

Glencore was alerted to Jean's injuries by a local chief. A Glencore's team visited him at his home."⁴⁰ They took photos of the injuries but conducted no further evaluation of the case. According to Glencore, since its staff received no further report about Jean's condition after their visit, his case was not "formally recorded" as a grievance in the company's system. ⁴¹

After RAID raised Jean's case, Glencore followed up further. In written correspondence Glencore said that according to its staff, Jean "showed signs of a skin condition that was described as a condition commonly seen during the rainy season". 42 Glencore did not identify what this "common condition" might be. This finding is at odds with the Chadian medical staff who examined Jean in the days and weeks after he was injured who either did not know what had caused his injuries or attributed it to hydrocarbons (see above). 43

Around the same time as Jean was injured, the family of another young boy, Paul*, 11 or 12 years old, from a nomadic family that often comes to Karwa village, also contacted AJTZP. Paul was watering his cattle at the river, squatted down and splashed water on his face to cool himself. A short while after, his skin began to burn. Pustules appeared on his ankles, hands and face, where the water had touched his body. Some of the cattle who drank the water also later died, according to Paul's family. Paul was taken to a hospital in Moundou, where he was hospitalized on 10 October 2018 for about 20 days. According to a family member, the doctor at the hospital said Paul's injuries were due to washing in "bad water", which contained hydrocarbons.



Paul's injuries, October 2018

Glencore was notified of the incident by AJTZP and the local Canton Chief and sent a small team, including an International SOS medical officer, to visit Paul. The Glencore medic conducted a visual examination, but according to those present, did not touch or otherwise examine the wounds and did not ask any questions to Paul or his family.⁴⁴

After the visit, a short 2-page report was compiled by Glencore staff on 13 October 2019, which was later seen by RAID. The report concludes the injuries to Paul (who the report mistakenly identifies as a girl) were not caused by any of Glencore's activities as the location they believed the boy was bathing at was upriver from the wastewater spill.⁴⁵ According to local civil society this assessment was incorrect.46 The report also concludes "If the child had bathed in this stream, the blisters should normally be observed all over the body but not only in the face."47 But according to the interview with Paul, the boy did not claim he had bathed in the water or that his body had been fully immersed. RAID staff witnessed scaring left by his wounds on Paul's ankles, hands and face, which matches the description of his position in the water to splash his face. Glencore's short report was not shared with Paul's family and they were provided no opportunity to correct it or to provide comments.

In the days and weeks that followed the wastewater spill and the reported oil pipe leak, photos taken by local civil society group AJTZP show stark images of physical injuries suffered by other local residents including burns, skin infections, and pustules, some of which appeared serious. During RAID's field visit in June 2019, hundreds of residents, many with young children, wanted to show their wounds and voice their concerns about the river water. One local resident described the injuries his 5-month old daughter suffered: "It was on her legs, feet and belly. It was like small pustules, like blisters everywhere. And it turned into open wounds... Before my daughter was healthy... Now she is suffering and is thin. She is still in pain – it is itchy on her thighs – and she scratches all the time." 48

Pictures of the wounds on victims, some of which were taken contemporaneously, were shown to international medical experts, including a doctor with extensive experience in Africa and an expert dermatologist. The doctors concluded that both Jean and Paul's injuries could have been caused by toxins in the water.⁴⁹

³⁹ RAID interview, resident of Karwa, Karwa village, Logone Oriental province, Chad (21 June 2019).

⁴⁰ Glencore's second response letter (n 2).

⁴¹ Ibid.

⁴² Glencore's second response letter (n 2).

 ⁴³ Interview, nomadic family member, Karwa village, Logone Oriental province, Chad (21 June 2019).
 44 Ibid.

⁴⁵ Glencore's second response letter (n 2).

RAID Interview, AJTZP, Moundou, Logone Oriental province, Chad (21 June 2019) and (3 March 2020).
 Document shown to RAID.

RAID Interview, residents of Dombogo, Dombogo village, Logone Oriental province, Chad (22 June 2019).
 Notes, meeting with Dermatologist expert, London, United Kingdom (30 July 2019), on file at RAID's office.

⁵⁰ Expert report seen by RAID.

Of the 49 cases shown to him via photographs, one of the medical expert said that five were likely caused by irritants or toxins in the water and 12 others could have been caused by toxins in the water but that, based only on the photos provided, would require further investigation. Based on the photos alone, he was not able to give an opinion on 12 further cases. The second medical expert concurred with these conclusions.50

IMPACT ON LIVELIHOODS - DEATH OF LIVESTOCK AND FISH

Residents also attributed a sudden widespread loss of livestock to the September spill. 17 residents told RAID that most of their livestock, including goats, sheep, pigs and cattle, died of unexplained causes in the weeks after the wastewater spill and the oil leak reported by local chief and residents.⁵¹ Residents attributed the deaths to the polluted river water.

One resident who lost 5 goats, 7 sheep and 22 pigs between mid-September and December 2018 said, "They all died, one after the other. The first to die were 2 pigs... Their hair fell out first. They had diarrhoea, vomiting and had open wounds on their paws.... We ate the animals that died. When we opened them, they were rotten inside. The meat was okay, but the organs were black and smelled." 52

"WHEN WE OPENED THEM, THEY WERE ROTTEN INSIDE. THE MEAT WAS OKAY, BUT THE ORGANS WERE BLACK AND SMELLED." 52

- LOCAL RESIDENT, CHAD

Some farmers referred to a high rate of miscarriages by their livestock during that same period.⁵³

Photos taken on the day of the wastewater spill show oil traces and dead fish floating on the surface of the water. One local resident said: "When the dam ruptured, all the fish died but Glencore never told us [about it] and we ate the dead fish."54





Floating dead fish in the river on the day of the watewater spill on 10 September 2018.

⁵¹ RAID interviews, 106 residents, Logone Oriental province, Chad (20 to 26 June 2019).

Stand Interviews, Too residents, Logone Oriental province, Chad (20 to 26 June 2019).
 RAID Interview, Karwa customary chief, Karwa village, Logone Oriental province, Chad (21 June 2019).
 Interviews, residents, Logone Oriental province, Chad (20 to 26 June 2019).
 RAID Interview, residents of Dombogo, Dombogo village, Logone Oriental province, Chad (22 June 2019).



Appearance of oil traces on the river surface, May 2019.

GLENCORE'S FLAWED IMMEDIATE RESPONSE

On 11 September 2018, the day after the 10 September wastewater spill, Glencore held a "public" consultation, inviting selected representatives of local communities and civil society organisations, though not the wider public or local residents. During the meeting, Glencore sought to re-assure those present and said that the wastewater which spilled into the Nya Pende River was safe based on tests it had conducted at the basin on the day of the spill and that there was "no immediate danger."55 But no test results were provided to support its claim. According to Glencore, the wastewater from the basin was predominantly rainwater and it refutes that the spill posed a risk to the health and safety of local communities.⁵⁶ Chiefs and community representatives had no way to confirm or reject Glencore's affirmation that the water was safe. Glencore did not hold further consultations with local communities in the days that followed nor did the company seek to communicate with local residents in other ways, such as through radio broadcasts or leaflets.

In written correspondence, Glencore shared the last sample and analysis of the wastewater in the basin the day of the spill. It said that the wastewater "was found to be within the limits required by the International Finance Corporation's performance standards."57 RAID found this was not case as more than half of IFC's criteria were not tested and the testing results of the wastewater showed levels that exceeded these standards. After RAID pointed out the inconsistencies, Glencore said it was "conducting a detailed review on our water sampling/testing protocols."58

In the days after the wastewater spill, Glencore conducted no tests on the river water used by thousands of local residents. The first test Glencore took of the river water was on 13 September 2018 when the company took a sample at the Khou tributary of the Nya Pende river, near to where the basin burst. In written correspondence, Glencore said the samples were tested at the its laboratory and at a third-party laboratory in Cameroon.⁵⁹ And again, the results were not shared with local communities.

Following the rupture, Glencore, as well as AJTZP and the Public Interest Law Center (PILC), a Chadian legal centre, reported the wastewater spill to the Ministry of Petroleum and the Ministry of Environment, both of which sent representatives to the area on 13 September 2018. The delegation commissioned further scientific testing of the treatment basins and adjacent soil, which took place on 10 October 2018.60

These results were of minimal value. A copy of the results, which RAID obtained, said: the "treatment chain has been shut down since September 10, 2018. Thus, the water collected was at least one month old." It added that the sample was also diluted by rainwater accumulated during the month between the wastwater spill and the water sample. Furthermore, the time elapsed between the taking of the sample and the receipt by the laboratories was "longer than is recommended to ensure optimum sample retention"61. Glencore said it received the government's results in April 2019 and that since they were "consistent" with its findings, did "not dispute" them.62

Glencore's first response letter (n 21).

Glencore's third letter (n 8).
 Glencore's first response letter (n 21).

⁵⁸ Glencore's second response letter (n 2)

⁶⁰ Glencore's first response letter (n 21).

⁶¹ Ecofilae, Badile Project, Produced water treatment: Diagnosis Phase, commissioned by the Ministry of Energy and Petroleum (November 2018), on file at RAID's office.
62 Glencore's first response letter (n 21). Following the receipt of the 9 August 2019 letter from RAID, PILC and AJTZP, Glencore said it tested the water and soil around the forme basin on 13 August 2019. This test was conducted nearly a year after the event and is therefore of minimal value.

No results, be it the government's or Glencore's, were shared with local communities, despite requests for the information.

On 8 November 2018, AJTZP and PILC alongside the Fédération Internationale pour les Droits Humains (FIDH), held a press conference in Chad's capital, N'Djemena to raise concerns about the wastewater spill and its effects on local communities, 63 mentioning several cases of physical injuries, including Jean's case. The press conference was covered by the local press and should have rung alarm bells for Glencore staff.

Glencore's local employees working at the Badila oil field, did say they received calls about physical injuries in the weeks after the wastewater spill. They said that it was difficult for Glencore's community coordinator to evaluate the cases as he had no access to transportation and the villages affected were a significant distance apart.⁶⁴ As a result, only Paul and Jean's cases were evaluated by Glencore, but, as described above, they were dismissed without adequate investigation. Glencore affirmed that its community relations teams responded to questions from the community as they arose following the spill.⁶⁵ After a few months of receiving complaints from residents about physical injuries related to the September wastewater spill, Glencore's local community representative was told by his superior to stop taking the calls. In his view, the case was closed.66

Glencore did not conduct any contemporaneous investigation into dozens of reports of physical injuries or the widespread death of livestock. Instead Glencore dismissed all claims and said it bore no responsibility, basing its reasoning on incomplete water testing, and an erroneous report from its medic. At no stage in the weeks and months that followed the wastewater spill or the oil leak reported by local chief and residents did Glencore provide any alternative explanation for the sudden injuries or the deaths of livestock.

But local residents were clear: the injuries to people and the death of their livestock were due to some kind of toxic substance in the river water coming from the operations at Glencore's Badila oilfield.

NO APPROPRIATE GRIEVANCE **MECHANISM FOR COMMUNITIES**

Glencore operates a grievance mechanism at its Badila concession to permit local residents to raise concerns directly to the company about the impact of the company's operations so they can be investigated and remedied.⁶⁷ In its Sustainability Report 2018, Glencore states: "[We] require our assets to operate grievance mechanisms to receive and address concerns from external stakeholders. We make local communities aware of the mechanisms and make them easy to access. We require that assets report and investigate all complaints."68

RAID's research found that Glencore's grievance mechanism at the Badila oilfield is ineffective and seriously flawed, with significant inconsistencies between its written procedures and implementation. It falls considerably short of the standards for such operational-level mechanisms under the United Nations Guiding Principles on Business and Human Rights (UNGPs), which Glencore says it adheres to.69 Amongst other things, the UNGPs provide effectiveness criteria for such mechanisms, including accessibility, legitimacy, transparency, and equitability, all of which are lacking at the Badila oil field mechanism. 70 Furthermore, addressing and resolving grievances should be based on engagement and dialogue.

The weeks and months following the wastewater spill and the leak from the pipeline reported by local chief demonstrate the spectacular failure of Glencore's grievance mechanism. Despite repeated and documented complaints by local people of physical injuries directly linked to the wastewater spill from the Badila oilfield, Glencore did not register one single grievance relating to physical harm or the death of livestock.71

65 Glencore's third letter (n 8)

⁶³ 'Glencore pollue la zone pétrolière de Badila' (Journal Le Pays | Tchad) https://www.lepaystchad.com/5791/ accessed 4 March 2020; 'Contamination mortelle dans la Zone Pétrolier de Badila' (Actualités du Tchad, 8 November 2018) https://www.tachad.com/contamination-mortelle-dans-la-zone-petrolier-de-badila accessed 4 March 2020; 'Tchad : Glencore accusé de pollution à Badila' (Journal du Tchad, 9 November 2018) https://www.journaldutchad.com/tchad-glencore-accuse-de-pollution-a-badila/ ac-

cessed 4 March 2020.
RAID Interview, Glencore's employee, Donia, Logone Oriental province, Chad (23 June 2019).

RAID Interview, Glencore's employee, Donia, Logone Oriental province, Chad (23 June 2019).

⁶⁷ Glencore's first response letter (n 20), referring to the Environmental with Glencore officials, London, United Kingdom (11 October 2019). ental and Social Impact Assessment of Badila and Mangara, 2012, on file in RAID's office; RAID interview, meeting

⁶⁸ Glencore, '2018 Sustainability Report' (2018) p. 53 https://www.glencore.com/dam:jcr/633f190c-76d6-42b3-beca-debb25134556/2018-Glencore-Sustainability-Report_.pdf accessed 3 April 2020.

^{69 &#}x27;Our Approach' (n 5). It should be noted that human rights are not included amongst the categories of grievances set out in the company's grievance procedure, creating uncertainty as to which human rights will be recognized and which impacts will be remedied

To United Nations Guiding Principles on Business and Human Rights, June 2011, available at https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr_en.pdf, 31.

⁷¹ Glencore's first response letter (n 21).

Glencore did acknowledge receiving 121 grievances related to the incident (with all but one complaint relating to flood-water damage), such as damage to farmland, trees and crops and provided compensation to 89 of them within weeks following the rupture of the basin. Glencore said "[t]he number of complaints received relating to damaged farmland are testament to how well the community know and use the grievance mechanism".⁷³

Glencore did acknowledge grievances related to flood-water damage, such as damage to farmland, trees and crops and provided compensation within weeks following the rupture of the basin, though Glencore provided no specific information as to how such compensation was calculated and if it engaged with the community to gain agreement. Glencore's grievance procedure allows for a unilateral resolution by the company. Glencore stated in correspondence with RAID that "[c]ompensation was paid in line with PCM's compensation procedures", referring RAID to the company's Environmental and Social Impact Assessment.74 However, that document offers no specifics concerning the bases on which compensation in such cases will be determined. After paying compensation for the damage to farmland, Glencore considered the cases closed.⁷⁵

Moreover, grievances need to be submitted within 30 days of an event to be considered valid, according to PMC's Guideline for the Management of Grievances at Badila ('Guideline')⁷⁶, and confirmed by Glencore's representatives during a meeting with RAID.⁷⁷ Although the Guideline indicates that grievances may be raised verbally or in writing, at that same meeting Glencore representatives stated that formal complaints must be in writing to be accepted and recorded. These two conditions dramatically undercut the accessibility of the grievance mechanism. Since the illiteracy rate in Chad is close to 80%, most residents are unlikely to be able to read or write. Thus requiring grievances to be presented in writing has a high risk of excluding many individuals.

Of the nine customary chiefs interviewed by RAID, three said they directly called Glencore's community representatives to raise concerns, without knowing that such a method is not accepted by Glencore.⁷⁸ Only two chiefs

were aware they had to write to Glencore if they wanted to raise a concern.⁷⁹

The majority of the grievances received by Glencore concerning damage to farmland were filed by residents from these two villages.

The same two chiefs said they had to wait until the local Glencore coordinator came to their village before they could hand him the complaint letters, since they have no means of transportation. They told RAID that Glencore representatives rarely visit them and only come when they need to recruit temporary labourers. The four other customary chiefs either contacted the local civil society organisation AJTZP or the Canton Chief to relay concerns about Glencore's operations. In this context of infrequent contact and/or indirect communication, the 30 day cut-off imposed by Glencore is unrealistic.

One chief said: "If I had the opportunity to inform Glencore and complain to them, I would do so." Et also customary chiefs do not understand Glencore's grievance mechanism and cannot access it, it is reasonable to assume that local residents are even far less informed.

Many complaints were also ruled inadmissible at the outset, but this was done entirely at the discretion of the company without proper reasoning, undercutting legitimacy and transparency. According to Glencore's written procedures, Glencore staff can refuse to consider "complaints clearly not related to the project", 83 a discretionary assessment that may exclude valid complaints.

The reported effects of the wastewater spill from the Badila oilfield appear to have fallen into this category. Local Glencore staff interviewed by RAID, and Glencore's written correspondence, shows that Glencore rejected repeated phone calls and reports of physical injuries and did not register them as complaints because Glencore's flawed water testing results appeared to show that the water posed no danger.⁸⁴ Such a caveat can provide justification to Glencore staff to not "investigate all complaints", in contradiction to Glencore's statement in its Sustainability Report (see above).

⁷⁶ On file at RAID's office.

77 RAID interview, meeting with Glencore officials, London, United Kingdom (11 October 2019).

⁷³ Glencore's third response letter (n 8).

⁷⁴ Glencore's first response letter (n 21).

⁷⁵ Ibid

⁷⁸ RAID Interview, Benadji customary chief, Benadji village, Logone Oriental province, Chad (21 June 2019; RAID Interview, Ngarnda customary chief, Ngarnda village, Logone Oriental province, Chad (24 June 2019) and RAID Interview, Bedar customary chief, Bedar village, Logone Oriental province, Chad (24 June 2019).
⁷⁹ RAID Interview, Melom customary chief, Melom village, Logone Oriental province, Chad (25 June 2019) and RAID Interview, Koutoutou customary chief, Koutoutou village,

⁷⁹ RAID Interview, Melom customary chief, Melom village, Logone Oriental province, Chad (25 June 2019) and RAID Interview, Koutoutou customary chief, Koutoutou village, Logone Oriental province, Chad (25 June 2019).
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⁸¹ RAID Interview, Karwa customary chief, Karwa village, Logone Oriental province, Chad (21 June 2019); RAID Interview, Dombogo customary chief, Dombogo village, Logone Oriental province, Chad (22 June 2019); RAID Interview, Betiman customary chief, Betiman village, Logone Oriental province, Chad (22 June 2019) and RAID Interview, Mbaynang customary chief, Mbaynang village, Logone Oriental province, Chad(23 June 2019).

RAID interview, Betiman customary chief, Betiman village, Logone Oriental province, Chad (22 June 2019).
 PetroChad Mangara Ltd (PCM), Guideline for the Management of Grievances at Badila, on file at RAID's office.

⁸⁴ RAID Interview, Glencore's employee, Donia, Logone Oriental province, Chad (23 June 2019) and RAID interview, meeting with Glencore officials, London, United Kingdom (11 October 2019).

Lastly, in the case of the wastewater spill, local residents were requested to evidence their claims before an investigation could be initiated. This can be an impossible task without appropriate expertise. For a grievance process to be equitable, information and expertise must be shared, but Glencore did not provide residents with water test results or incident reports. It unreasonably expected victims to evidence their claims, but did not

provide support on how to do so. Individuals who report injuries or the death of livestock that they believe are linked to toxins in the river water, would need to seek scientific analysis and/or medical expertise to back up their claim, especially if the company has already decided, perhaps incorrectly, that its operations are not responsible for the harm. Local residents have none or very limited access to such evidence.

" IF I HAD THE OPPORTUNITY TO INFORM GLENCORE AND COMPLAIN TO THEM, I WOULD DO SO. "

- LOCAL CHIEF, CHAD



Appearance of oil traces following wastewater spill, 10 September 2018"

GLENCORE RESPONSE TO RAID

Following the field mission to Chad, RAID, working alongside Chadian civil society groups, PILC and AJTZP, wrote to Glencore raising human rights and environmental concerns relating to the wastewater spill. Glencore/PCM provided a detailed response which was followed by a further on-the-record discussion at the Glencore UK office, where photos and videos were shared. Glencore provided further information following that meeting.⁸⁵

Glencore says that: "Of the complaints received relating to the water release, none related to injuries" and that it therefore "did not investigate any complaints of this nature." The company said it did "receive a single verbal report but no formal complaint on 13 October 2018, which related to a young girl [sic] who appeared to have suffered blisters following bathing in the Nya River."⁸⁶

This statement appears at odds with the plethora of information that was available to Glencore staff in Badila including phone calls from local chiefs and AJTZP reporting injuries; the press conference in Chad by civil society groups AJTZP, PILC and FIDH reported by the local media and radio⁸⁷; letter exchange between PILC

and Glencore's representatives on 15 and 29 April 2019⁸⁸ and followed up discussion on 30 May 2019; and a 28 November 2018 written report by AJTZP and PILC which detailed 13 cases of physical injuries attributed to problems with the river water.⁸⁹

During the meeting in London on 11 October 2019, one of Glencore's local representative said that she heard about accounts of physical injuries and the death of cattle, but said staff did not pursue the allegations because the testing conducted by Glencore showed the wastewater was harmless. Complaints relating to the wastewater spill were therefore not logged in Glencore's internal register and thus not investigated.

On the pipeline leak reported by local chief in September 2019, Glencore said there had been maintenance on the pipeline at a similar location on 16 and 17 August 2018 and that there was no damage to the pipeline itself or any loss of hydrocarbon. It said it visited the area on 21 October 2019 which "confirmed there was no evidence of hydrocarbon release in the vicinity" though it provided no details on what, if any, tests had been conducted to confirm this conclusion.



Wastewater rupture, 10 September 2018

⁸⁵ Following the field mission to Chad, RAID, working alongside Chadian civil society groups, PILC and AJTZP, wrote to Glencore on 9 August 2019 and Glencore/PCM provided a detailed response on 6 September 2019. RAID met with Glencore staff on 11 October 2019 for a further on-the-record discussion at the Glencore UK office. In follow-up to this meeting, RAID shared further clarifications about the allegations, including three videos taken on 9 May 2019 by a local resident which appeared to show hydrocarbons on the surface of the river. On 25 October 2019 Glencore wrote to RAID providing further clarifications. On 3 March2020 RAID wrote to Glencore requesting further updates on any additional steps taken by the company relating to human rights and environmental concerns at its Badila operations. Glencore responded on 6 March 2020. Correspondence between RAID and Glencore can be found on RAID's website at https://www.raid-uk.org/sites/default/files/raid-glencore_correspondence_redacted.pdf

Glencore first response letter (n. 21)**

Glencore's first response letter (n 21).
 'Glencore pollue la zone pétrolière de Badila' (n 63); 'Contamination mortelle dans la Zone Pétrolier de Badila' (n 63); 'Tchad: Glencore accusé de pollution à Badila' (n 63).
 PetroChad Mangara Ltd (PCM)'s letter to Public Interest Law Center (PILC), dated 15 April 2019 and PILC's response letter, dated 29 April 2019, on file at RAID's office. Both mentioned the wastewater spill and the reports pf physical injuries.

⁸⁹ Public Interest Law Center (PILC) and Association des Jeunes Tchadiens de la Zone Pétrolière (AJTZP), Report on the September 2018 wastewater spill (28 November 2018).
⁹⁰ Glencore said to RAID during the 11 October 2019 meeting in London that it did not receive that report until 5 June 2019, when it was sent directly to the PetroChad Mangara

In response to the three videos and photos taken by local residents appearing to show hydrocarbons on the water surface, Glencore stated in written correspondence that during its October 2019 visit "a fine sheen was detected in a small area upstream... in an area of stagnant water, but showed no evidence of crude oil or any residue from a crude oil release." Glencore said that the "sheen is a result of a natural phenomenon unrelated to crude oil and similar cases can also be seen in areas where there is no hydrocarbon activity".91

To support its claim, Glencore linked, in its letter, to factsheets from the US Minnesota Pollution Control Agency92 and the website Ask a Naturalist. 93 According to these sources, this "natural phenomenon" is observed mostly on stagnant or shallow water. In contrast, the videos and photos presented to Glencore show the oil sheen on flowing water or on the surface of the water shortly after the wastewater spill from the basin, which presumably was fast flowing. Local residents who suffered injuries also reported a distinct smell from the river water.94 According to the Minnesota Pollution Control Agency, a distinct odor can help distinguish natural sheen from one caused by petroleum. Glencore provided no water testing results or other scientific evidence to evidence its claim that the sheen was natural.

Confronted with the results of RAID's field research in Chad, Glencore said "we continue to believe that the identified medical cases are unrelated to our operations, however, we are committed to trying to understand the root causes." Glencore said it would conduct further research and investigations using "independent resources and further engagement with the communities where required." Specifically, Glencore committed to:

- i. Review its water sampling/testing protocols;
- ii. Review its grievance mechanism;
- iii. Commission an independent assessment of the ground and river water;
- iv. Commission a further review into the medical assessments of the skin-related issues reported by RAID.95

RAID welcomed these commitments. Glencore confirmed via written correspondence that, following the meeting with RAID, they reviewed their water sampling and testing protocols and its grievance mechanism which will undergo an internal audit in April 2020. It also confirmed it had appointed an independent consultant to conduct assessment on ground water, river water and soil samples upstream and downstream of the Badila concession and that it was in the process of "commissioning an independent Health Impact Risk Assessment on the public health risks in the region as well as the surrounding communities. Glencore added that it "remain[s] concerned that in many cases, it is difficult to reconcile [RAID's] conclusions with the very clear information that we have provided during our engagement."98 At the time of publication, RAID has received no updates from Glencore on the implementation of these commitments. Representatives of local communities said that they had not heard about the results or steps taken to conduct of these additional investigations and reviews.



Wastewater basin, August 2018.

Glencore's second response letter (n 2).

⁹² Jason Moran, 'Nonpetroleum Sheens on Water' (Minnesota Pollution Control Agency, June 2017) https://www.pca.state.mn.us/sites/default/files/c-er4-07.pdf accessed 4 March 2020.

⁹³ Tom of, 'What Is This Oily Sheen on the Marsh?' (Ask a Naturalist®, 3 September 2010) < http://askanaturalist.com/what-is-this-oily-sheen-on-the-marsh/> accessed 4 March

⁹⁴ RAID Interview, resident of Dombogo, Dombogo village, Logone Oriental province, Chad (22 June 2019); RAID Interview, resident of Mbaynang, Mbaynang village, Logone Oriental province, Chad (23 June 2019) and RAID Interview, resident of Karwa, Karwa village, Logone Oriental province, Chad (21 June 2019).

⁹⁵ Glencore's second response letter (n 2). ⁹⁶ Glencore's third letter (n 8).

⁹⁷ Ihid. 98 Ibid.

WHAT GLENCORE SHOULD HAVE DONE

Glencore should have built the wastewater basin to withstand heavy tropical rain. When the earth banks supporting the basin began to leak, Glencore should have used all means necessary to repair the damage and avoid the spill.

Glencore should have warned people well in advance of the impending spill and taken steps to ensure the safety of the public.

Glencore should have conducted thorough, exhaustive and independent testing of the wastewater before telling the public it was safe. It should have warned people against using the water, until independent experts could confirm it posed no harm.

Glencore should have publicly shared all reports of water testing and scien-

tific data in its possession, explained

the findings and permitted public

scrutiny.

Glencore should have held regular and open public consultations with local communities in the wake of the spill, ensuring its staff had the means to visit local residents, could gather complaints and used multiple types of communication (radio broadcasts, leaflets, phone calls).

Glencore should have immediately, thoroughly and transparently investigated reports of physical injuries (skins burns, lesions, pustules) and the sudden death of livestock, and sought to compensate any harm linked to its operations.

Glencore should have ensured its grievance mechanism complied with the UN Guiding Principles on Business and Human Rights, that it was accessible, effective, equitable and independent.

Glencore should have enacted in a timely fashion its belated commitment to international and Chadian civil society groups to "understand the root causes" of the harms and to conduct "further research and investigation." Glencore still has not published any findings.