



Kitwe → Victoria Falls

Cars at work in the darkness of mines.

On safari tours in Tanzania, Land Cruisers take guests out to see giraffes and lions, but in Zambia they're used to take workers down more than 1,000 meters into the earth to deep underground copper mines. Mopani Copper Mines runs a historic mining operation where electric lights have not been installed and the cars must traverse treacherous sloped roads in the dark. Matsumoto of the CV Chassis Engineering Division says he knew that

there was a commercial fleet market for Zambian mines.

"But I didn't realize just how harsh the working environment was until I saw it with my own eyes. It seemed like an unimaginable place

from the documents sent to Japan. The most common breakdowns that occur are related to the transmission and the suspension, but what they focus on more than anything else is repairability. The reason they choose



the Land Cruiser is because it has few breakdowns, so its total cost is actually cheaper than other cars when you factor in repairs. I think this firsthand experience of what customers need will give me a place to work from in the future."

Matsumoto says *"you can't do design by the numbers,"* and he seems intent on going back to the basics in building cars.

Doing battle with potholes.

When the team took a road just off of the main road, they started hitting one pothole after another and discovered that driving on the unpaved shoulder offered far greater driving stability. Local leader Kevin seemed almost gleeful at the debriefing as he asked the team, *"You don't find roads like that anywhere else in the world, do you?"* Anthony, who was joining the

project from Kenya, was skilled at spotting the potholes and swerving around them before hitting them. His teammates in the car wondered amongst themselves if sharp eyesight gave him this ability, but it's probably because he's used to driving on bad roads. The team had to contend with pothole-filled roads and long stretches of corrugated road surface, and now in Zambia they were more often passing trucks at high speed. Driving required getting the maximum performance possible out of the cars in each situation.

Shindo of the Vehicle Evaluation & Engineering Division sensed that the definition of what makes *"a better car"* was different depending on the country.

"When I was in Japan, I talked about Africa like it was all the same place, but of course the conditions are completely different country by country."

Compared with Tanzania, Zambia's roads are better maintained even

with all the potholes. South Africa's roads are more similar to Europe's. I think getting out on the roads and experiencing the differences ourselves will lead to making 'better cars.'"

He learned that there are environments where keeping dust out of cars is more important than acceleration performance, which is his field of expertise.

The presence of the almighty Land Cruiser.

Sekiya of the Advanced Technical Skills Institute tries to talk to local people as much as possible and thinks about the cars in relation to the environmental variations. He's participated in every Drive Project since the first one in Australia. He compared what Makah of Toyota Zambia said about the Hilux's engine performance to his experience in Brazil.





“In South America, I was told over and over that the Hilux didn’t have enough power, but Maka said that customers in Zambia praise the Hilux as being a wonderful car. It may have to do with Zambia’s relatively flat topography. When the continent changes, the cars that are needed also change.”

In spite of this assessment, his face broke out into a smile after he finished driving a Land Cruiser 200 for the first time in a year or so. *“This car just feels like it has a ‘presence’ that goes beyond its performance.”* The Land Cruiser 200 seems more at home on the roads of Zambia than on the roads of Europe, which are well maintained and demand fast speeds. For Sekitani, the Land Cruiser 200 was becoming like a trusted friend with expert knowledge of the different environments.

Second-hand Toyota models like the Vitz and Altezza were on the streets of Zambia’s capital city Lukasa, but once the team got outside the capital, all

they saw were trucks and off-road vehicles. As they headed out of a small town, the Prado’s back left tire hit a pothole and got a flat. It was the second flat tire after the one in the Serengeti National Park in Tanzania. The team is undoubtedly driving in a tough environment. Keith, who is participating from TSAM in South Africa, says that the ever-changing conditions and roads that almost seem to test the cars are *“real life conditions.”* The team took a land route across the border to their third country, Zimbabwe, with zero serious accidents so far. The thunderous roar of Victoria Falls welcomed the Drive Project team in grand fashion.



Distance: 1,028km
Duration: September 3-7, 2018
Days: 5 days
Vehicles: Fortuner, Land Cruiser 200, Hilux Double Cab, Land Cruiser 79 Double Cab, Land Cruiser Prado