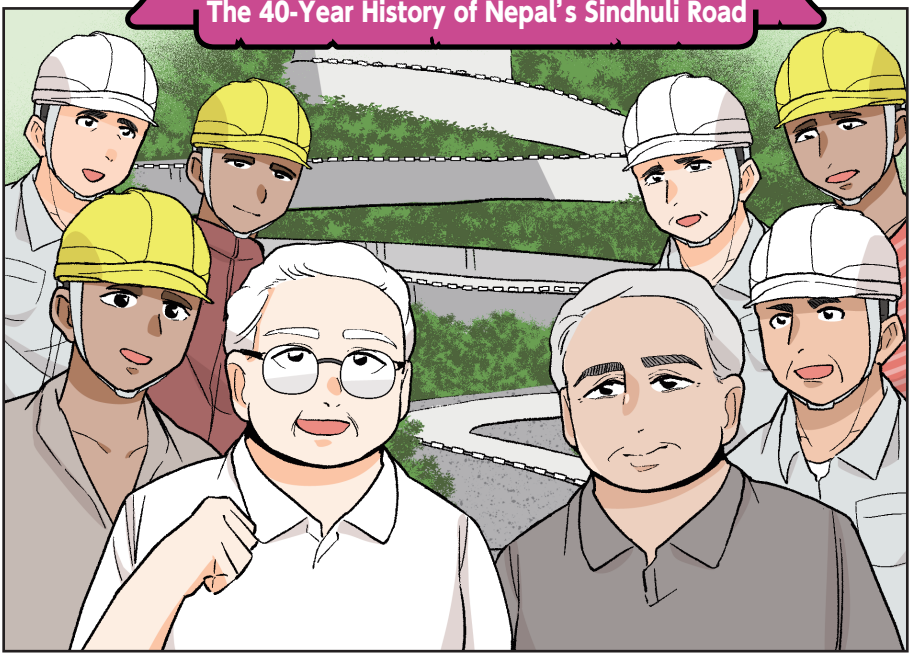
Nepal

Project History (Manga Edition)

A Road to the Future

The 40-Year History of Nepal's Sindhuli Road

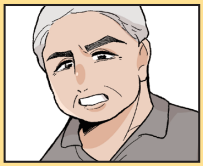


Original Story & Supervision: Haruko Kamei
Manga: Kiichi Komenoe

JICA
Japan International Cooperation Agency

Main Characters

Government of Nepal



Bindu Shamsher Rana

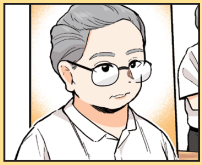
Project Director, key figure on the Nepalese side

JICA expert

Toshio Kimata

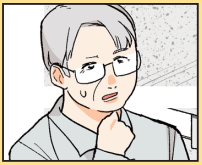
JICA expert dispatched to the Department of Roads

Nippon Koei



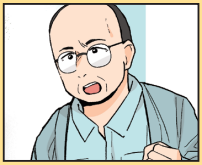
Hiroki Shinkai

Lead Engineer



Yoshihisa Yamashita

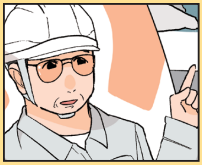
Key contributor



Hideo Katagiri

Supervised construction on site for 12 years

Hazama-Taisei



Akira Noguchi

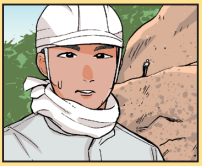
Site Manager, Section 1

Masanobu Kadowaki

Site Manager, Section 4

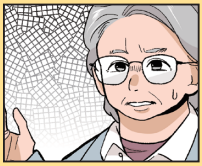
Shizuo Murata

Site Manager, Section 2



Yoshinori Izawa

Site Manager, Section 2; deputy site manager for Section 3



Tetsuo Igari

Site Manager, Section 3


Nepal, 1986
Can we really build a road here...?

Nepal is a land-locked country situated between India and China.

China

Himalayas

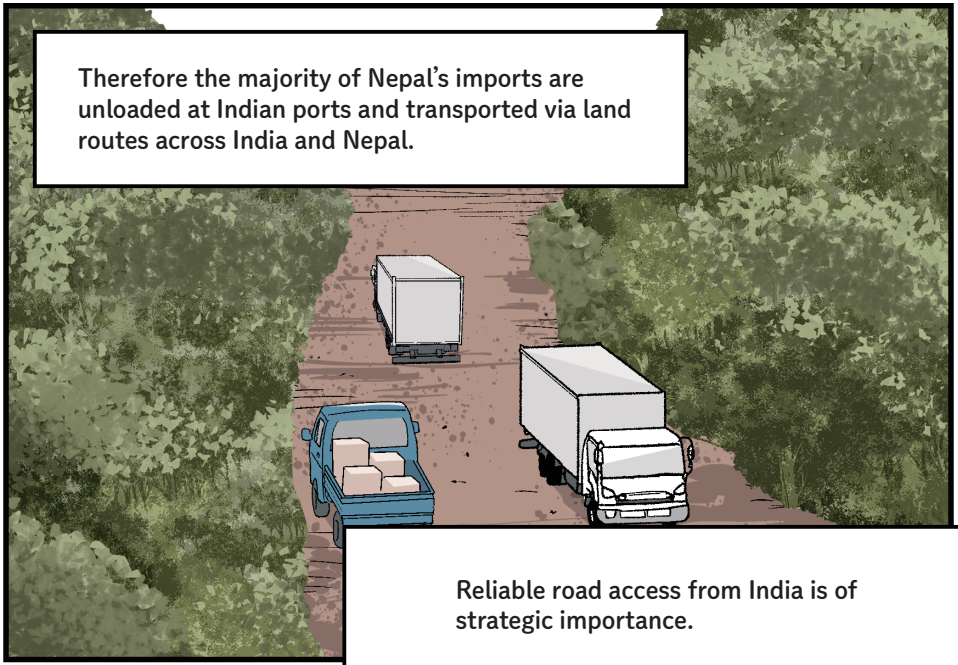
Nepal

Kathmandu

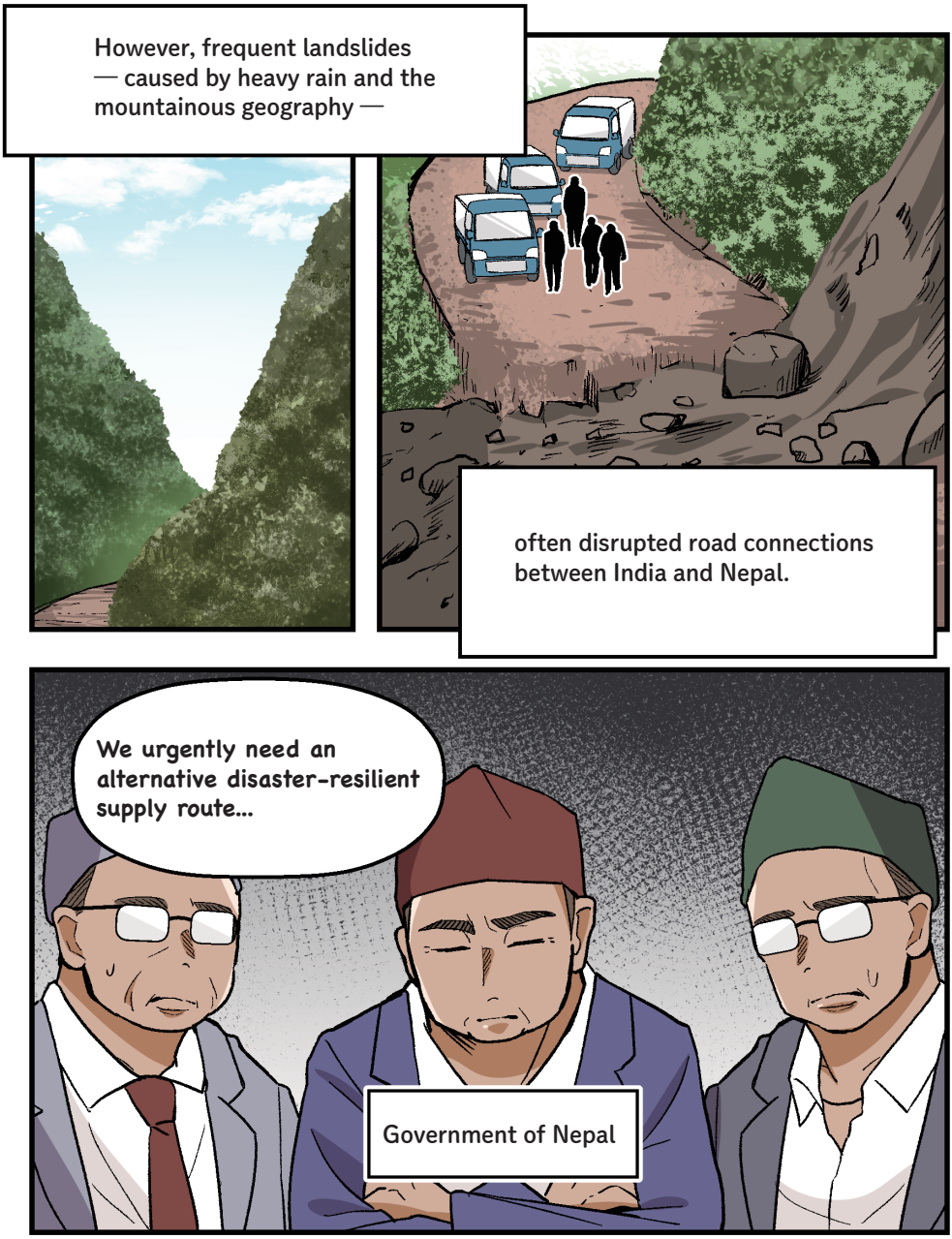
India

The country lies between the Himalayas in the north and northern India in the south, with no access to the sea.

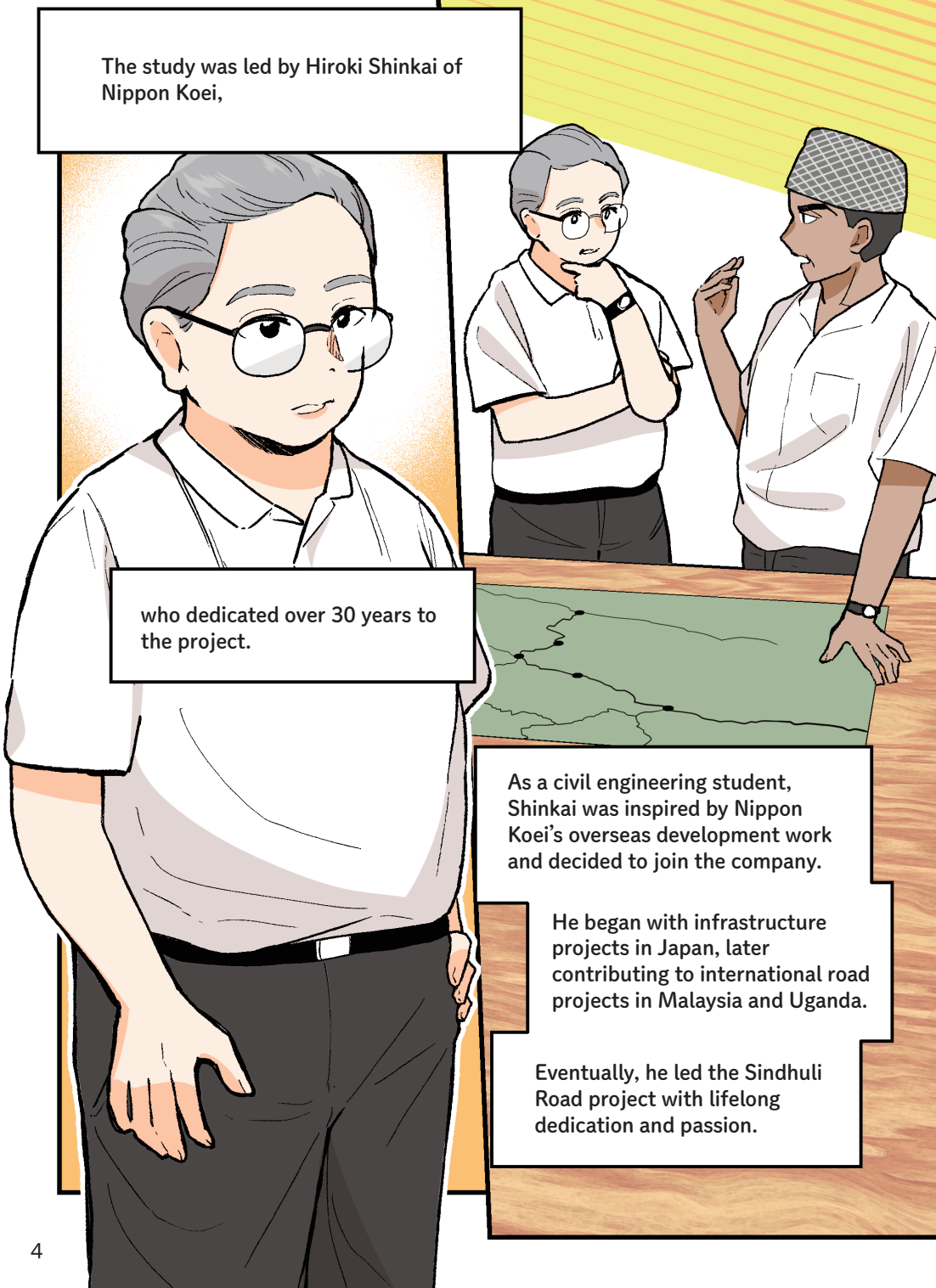
Therefore the majority of Nepal's imports are unloaded at Indian ports and transported via land routes across India and Nepal.



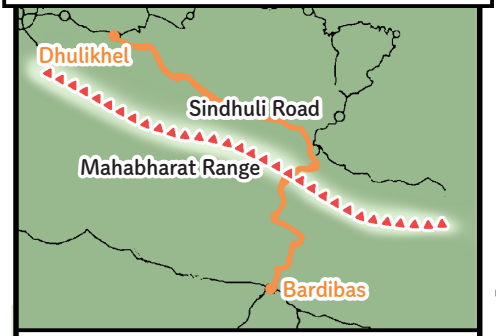
Reliable road access from India is of strategic importance.



In response to Nepal's strong and urgent need, JICA launched a study for the Sindhuli Road in 1986.


The study was led by Hiroki Shinkai of Nippon Koei,
who dedicated over 30 years to the project.
As a civil engineering student, Shinkai was inspired by Nippon Koei's overseas development work and decided to join the company.
He began with infrastructure projects in Japan, later contributing to international road projects in Malaysia and Uganda.
Eventually, he led the Sindhuli Road project with lifelong dedication and passion.

To connect Dhulikhel, near Kathmandu, with Bardibas, which connects to India,



the road must pass through Mahabharat Mountain Range, which stands over 2,000 meters high.

This fault is fragile and earthquake-prone,

requiring countermeasures against unstable geology and landslides.

Should we cut through the mountains?

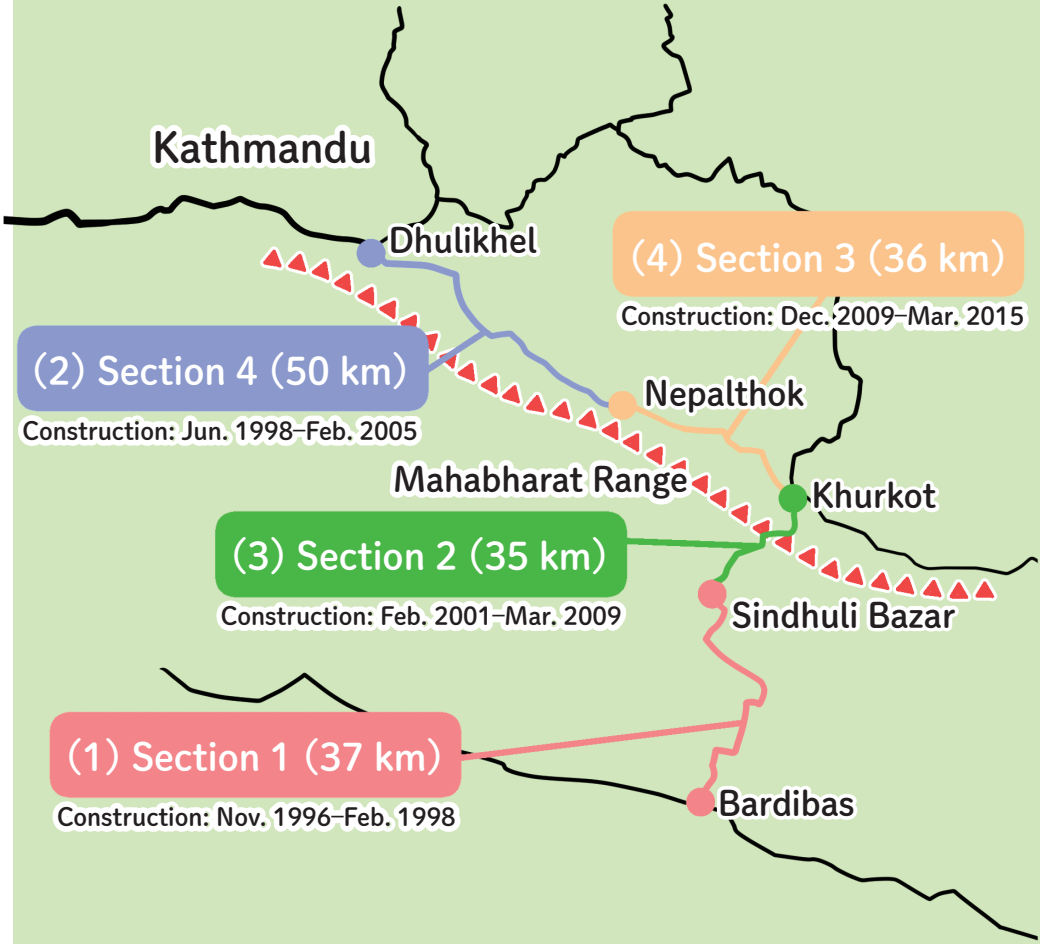
Or embank valleys...?

Road design should accommodate traffic forecasts and

adapt to local terrain and geological conditions.

With Grant Aid Assistance by the government of Japan,

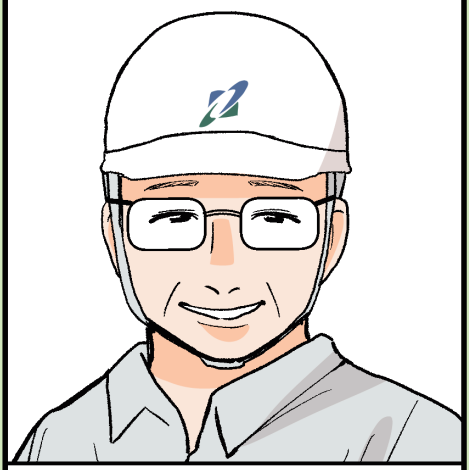
the Sindhuli Road project became a 20-year mega-project between Japan and Nepal.



* The road was a completely new road that required clearing jungle-covered mountains.

[Project Stakeholders]

Government of Nepal
Department of Roads, Ministry of Physical Infrastructure and Transport
Project owner (client)

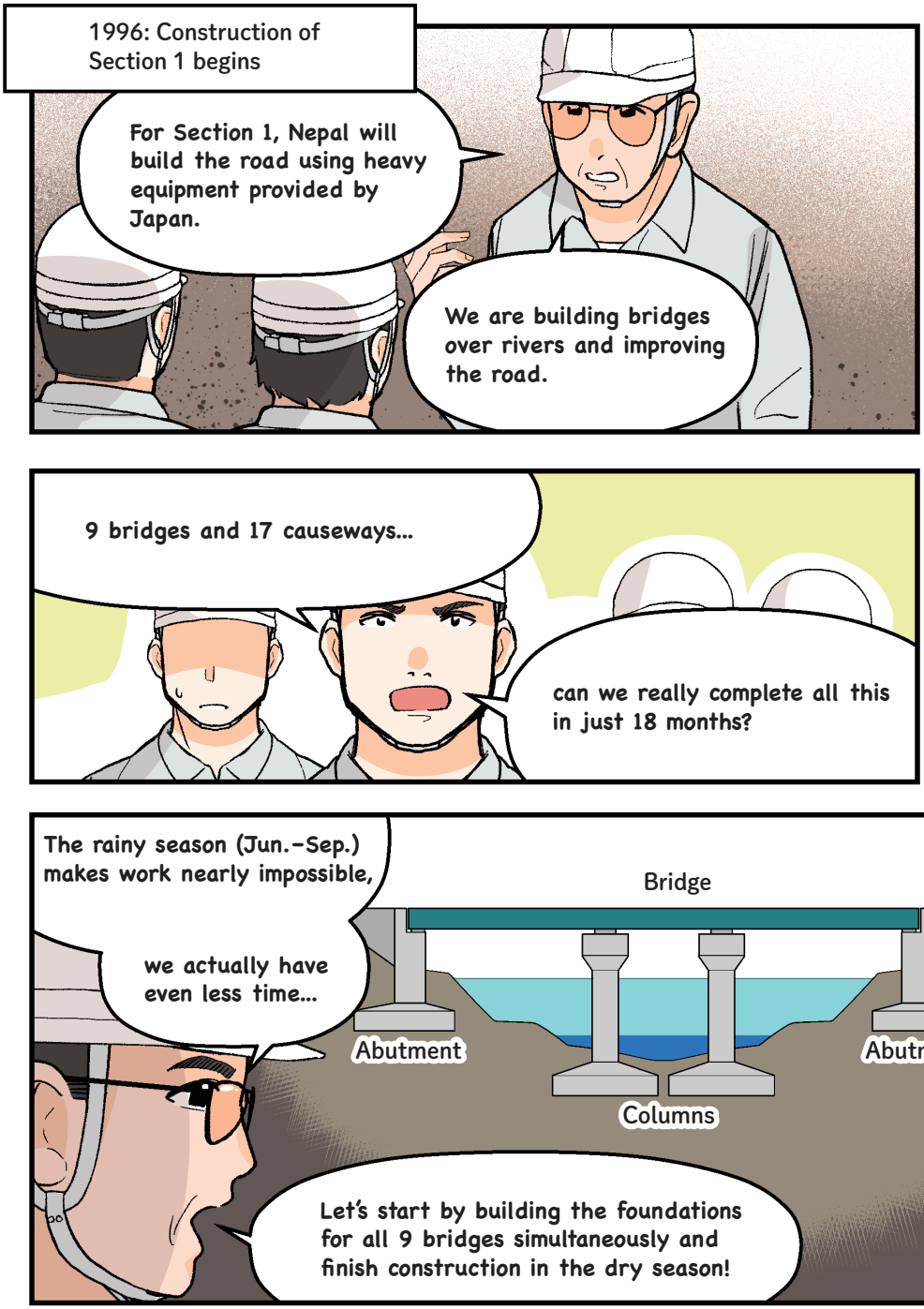


Hazama-Taisei *
Construction contractor

Nippon Koei
Consultant responsible for technical and construction supervision

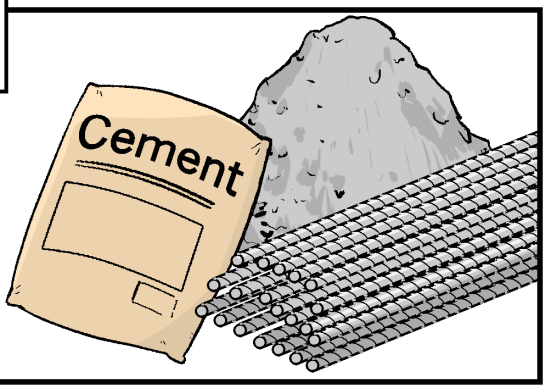
JICA
Responsible for project planning, surveys, monitoring, and coordination

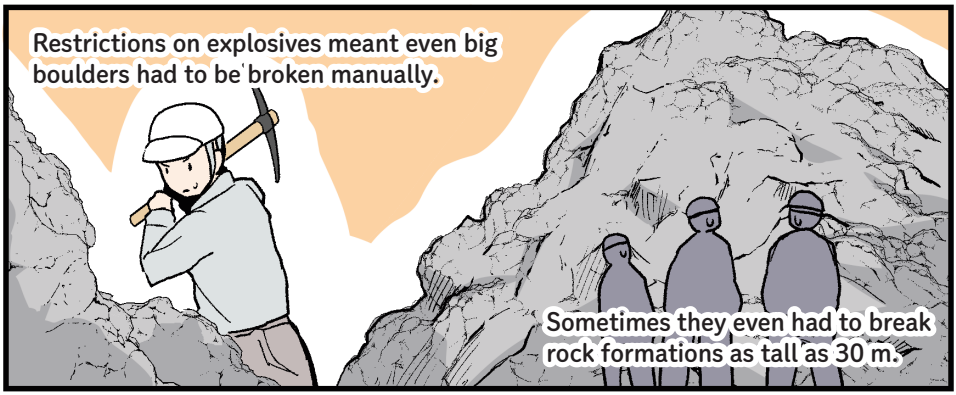
* Construction was carried out by a joint venture between Hazama Corporation and Taisei Corporation, and Hazama Ando Corporation. For simplicity, they are referred to as “Hazama-Taisei” in this publication.

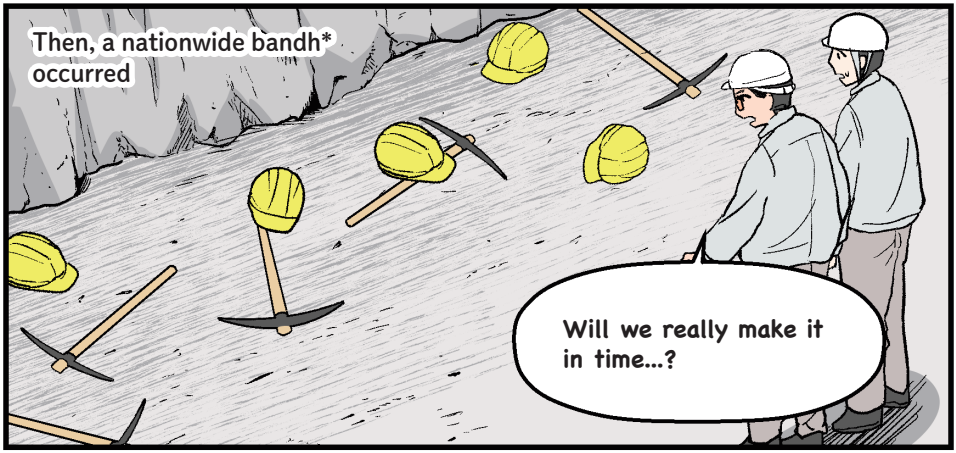

1996: Construction of Section 1 begins
For Section 1, Nepal will build the road using heavy equipment provided by Japan.
We are building bridges over rivers and improving the road.
9 bridges and 17 causeways...
can we really complete all this in just 18 months?
The rainy season (Jun.–Sep.) makes work nearly impossible,
we actually have even less time...
Bridge
Abutment
Abutment
Columns
Let's start by building the foundations for all 9 bridges simultaneously and finish construction in the dry season!

Despite the need to work quickly, many problems occurred.

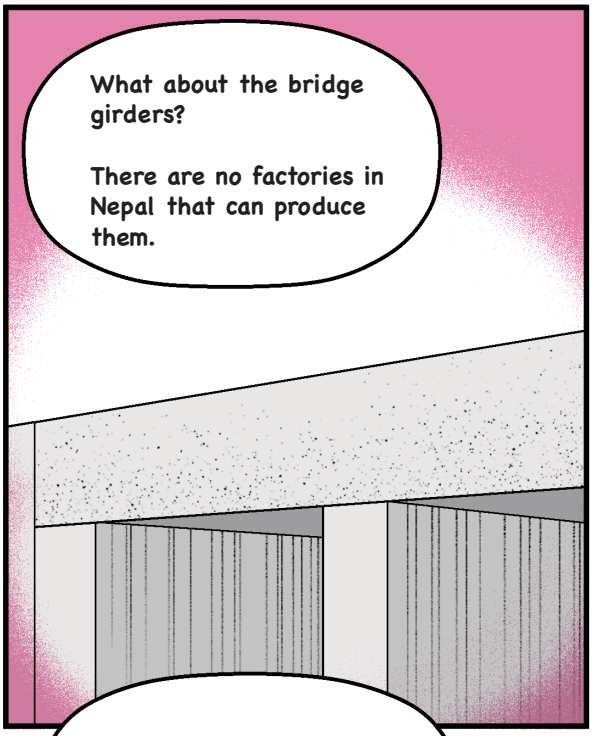
Remote mountain location made securing and transporting rebar and cement very difficult.

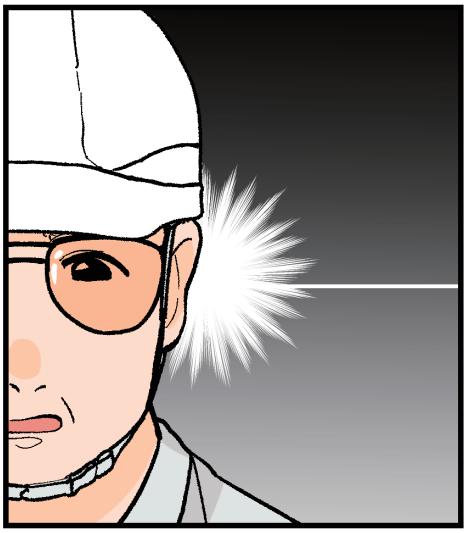






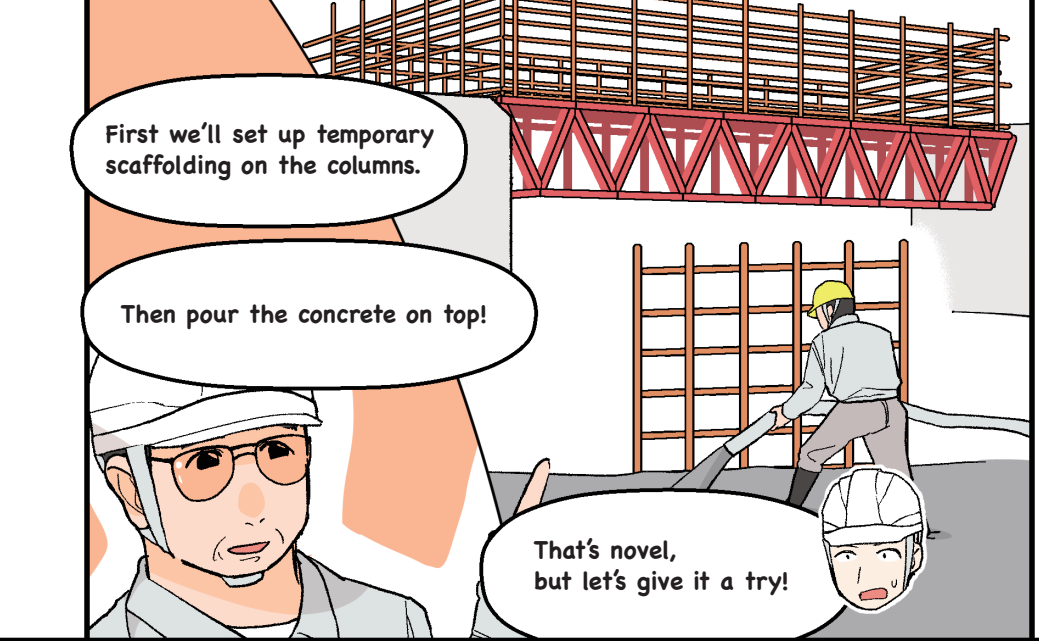
* Bandh = a form of strike by workers to show political protest or to protect their rights.


What about the bridge girders?
There are no factories in Nepal that can produce them.

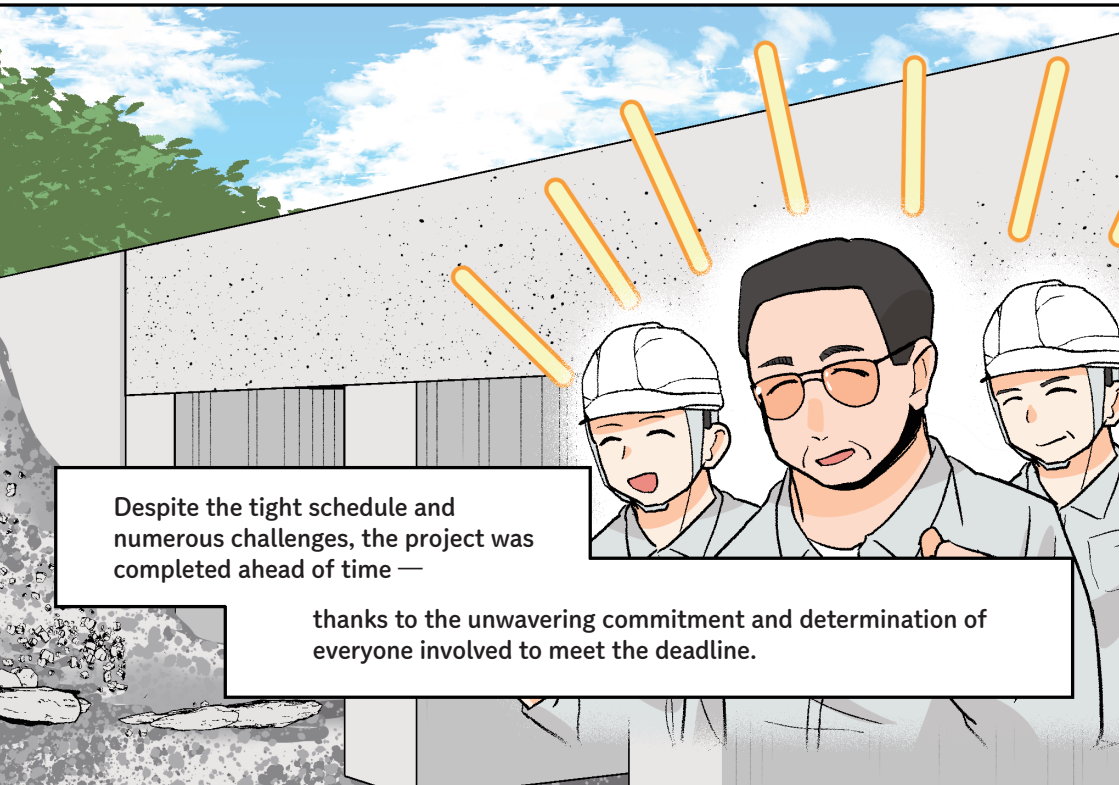


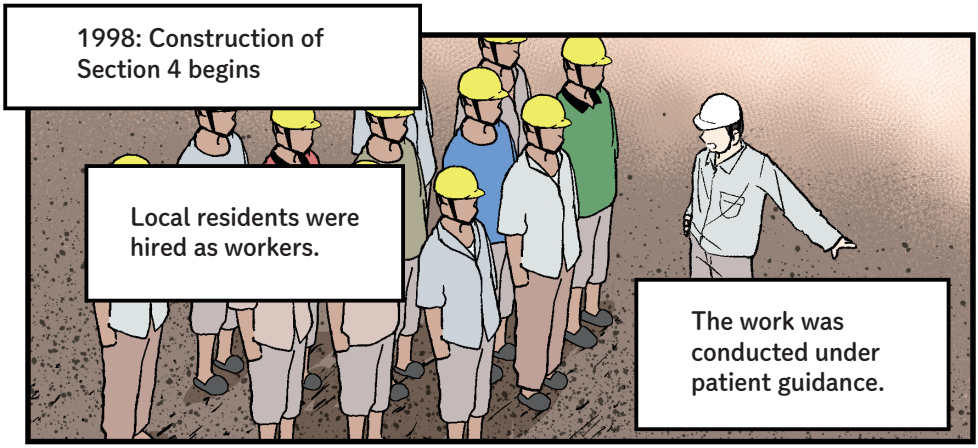

We also don't have trailers or cranes to transport them.
What are we supposed to do...?

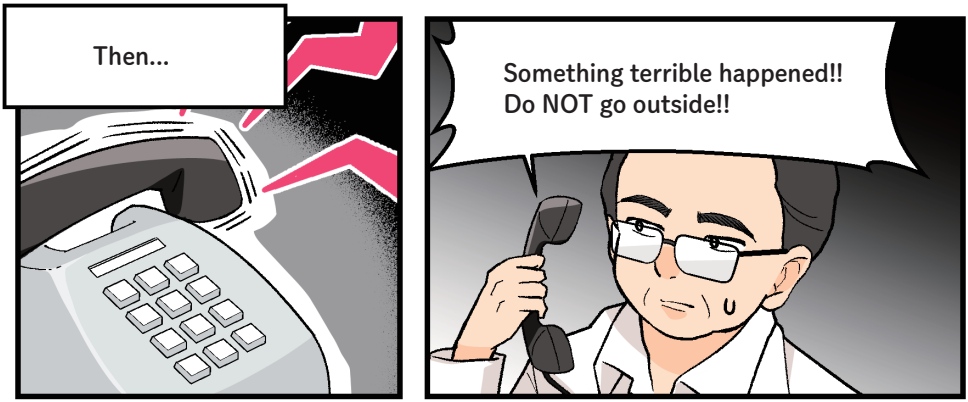

We'll build them on site!
Is that even possible?



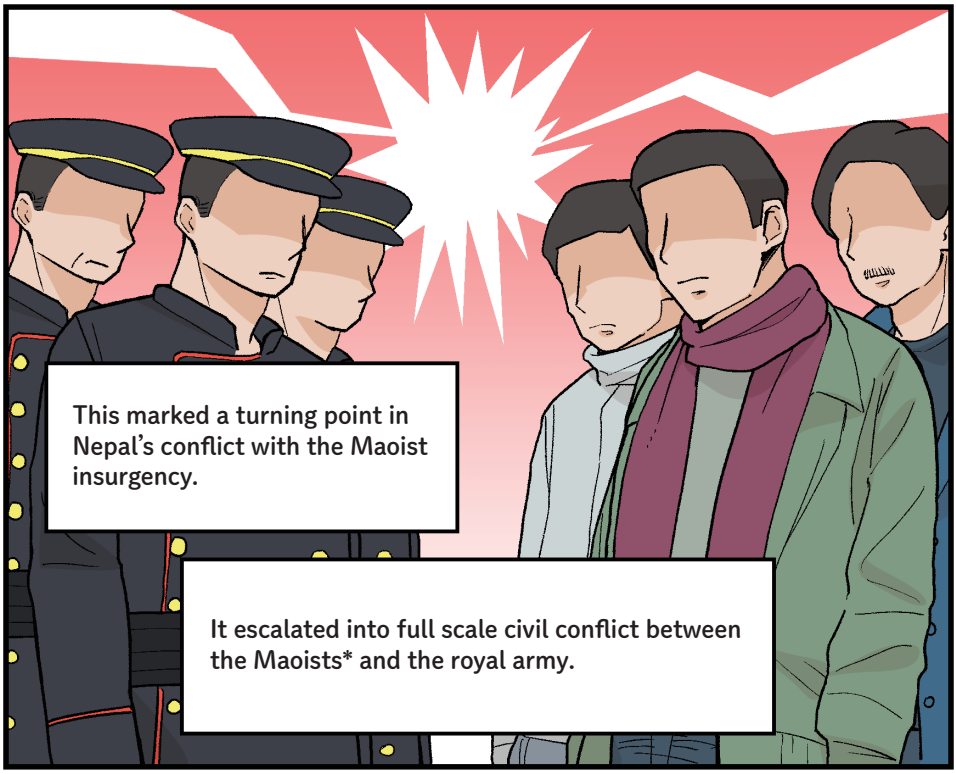
Thanks to Hazama-Taisei's outstanding technical expertise, the work finished 4 months ahead of schedule.

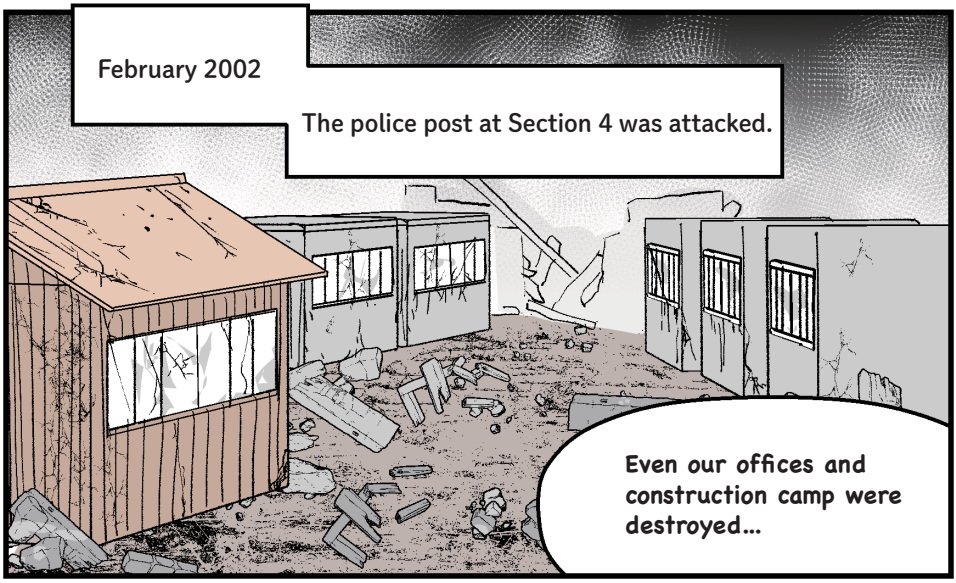




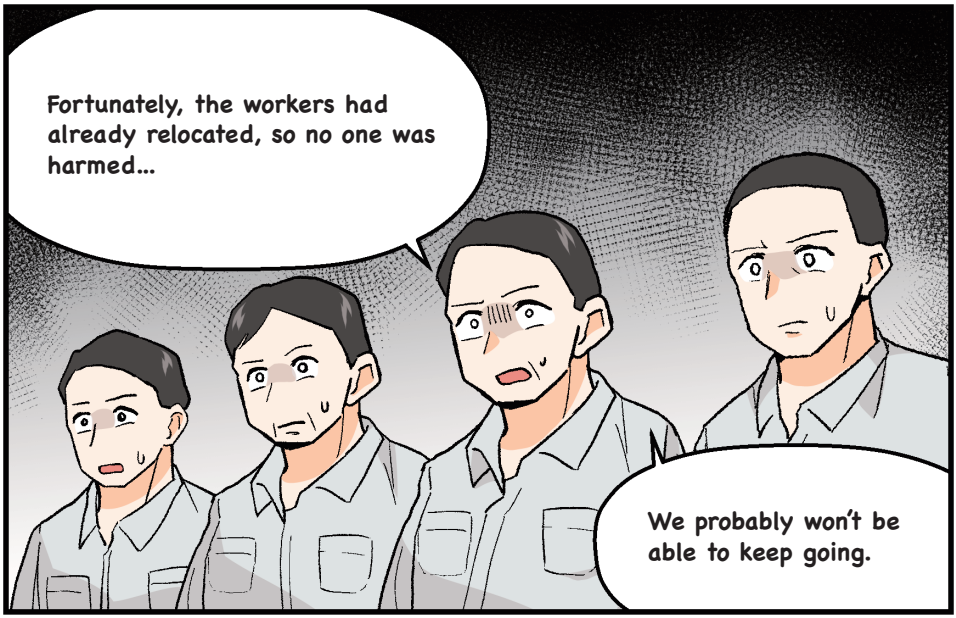


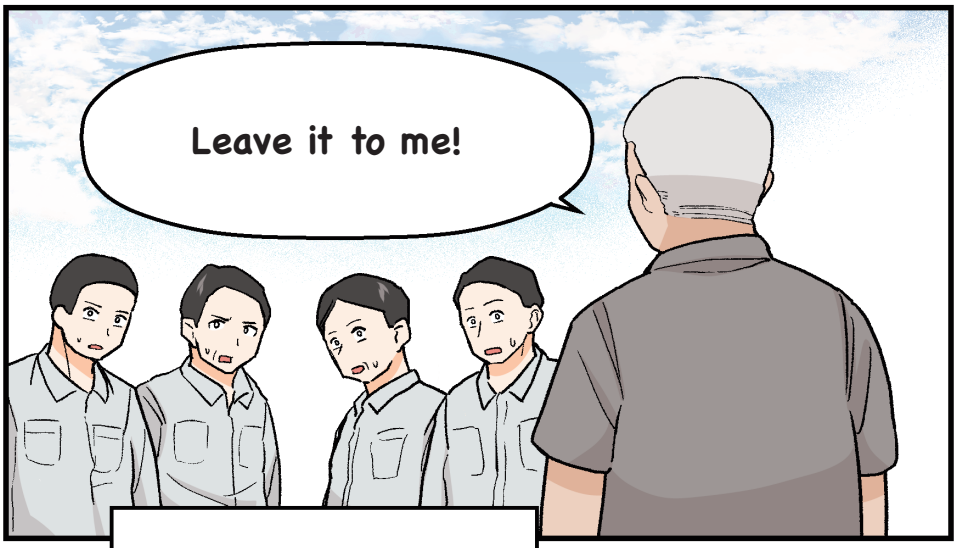
* A tragic incident in which the then crown prince allegedly killed many royals, including King Birendra, at the royal palace.





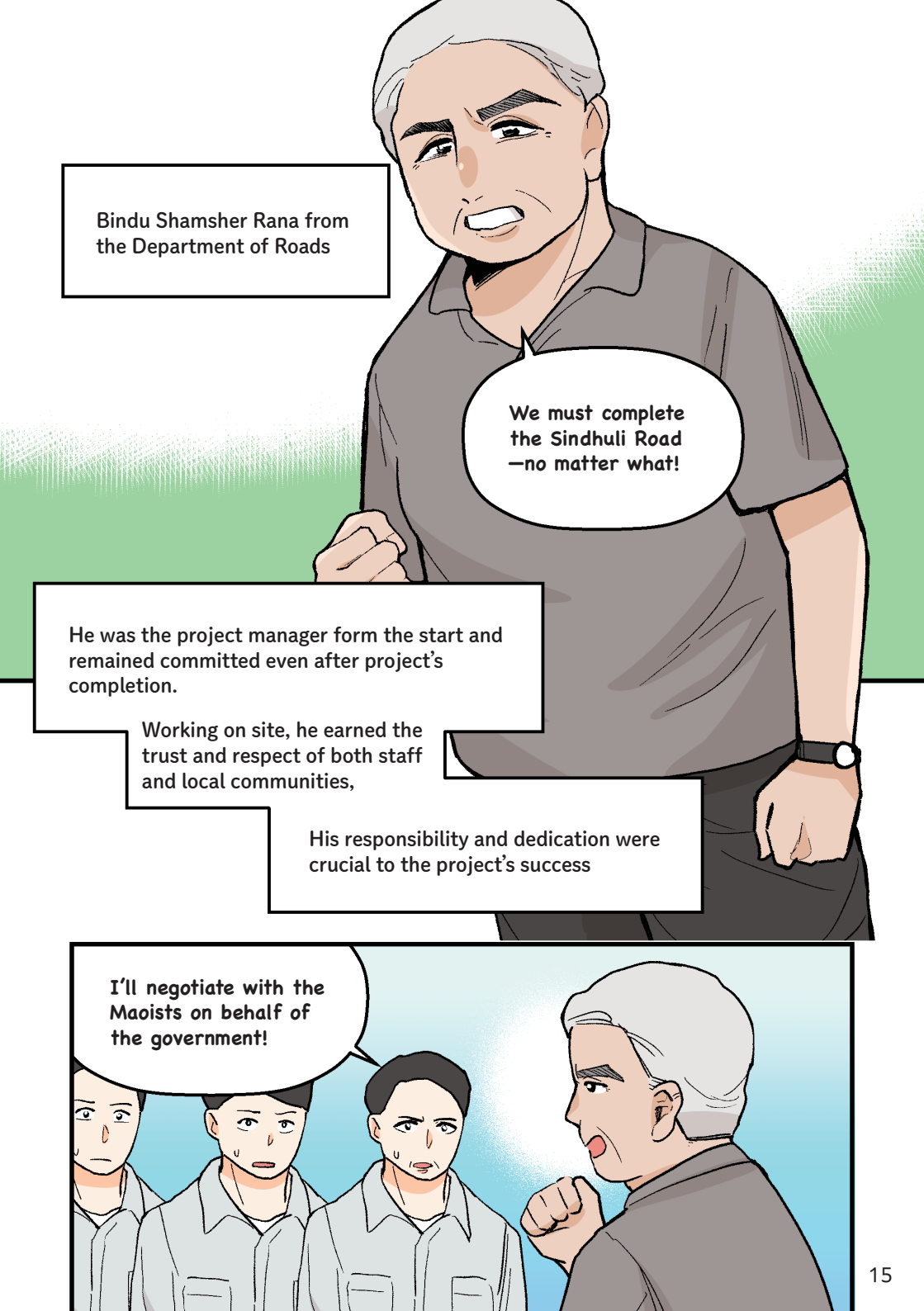
Maoists = Communist Party of Nepal (Maoist). They were the leading force behind the Maoist insurgency against the government which started in 1996 and became known as the People's War.





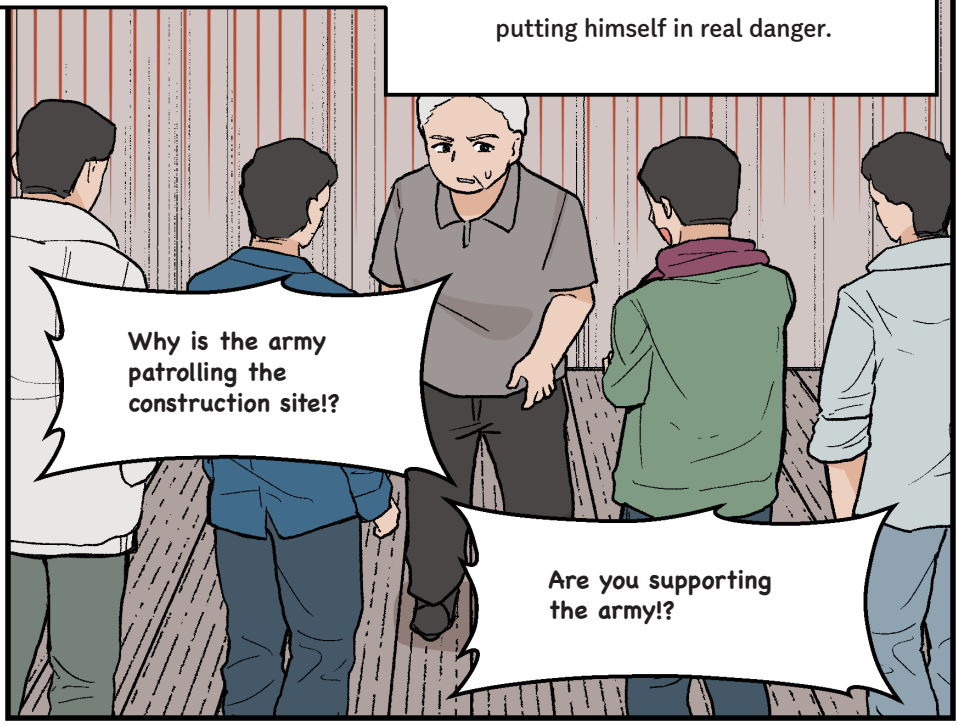
Amid deteriorating security affecting construction progress,

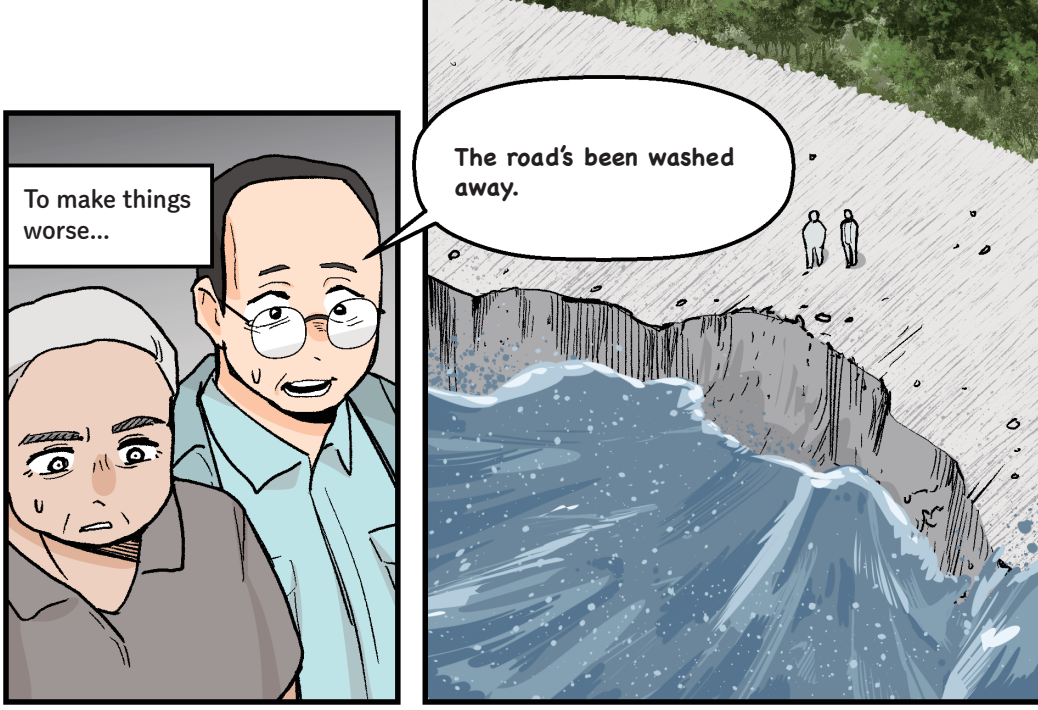
a man striving to resolve issues with Maoists and locals is ...

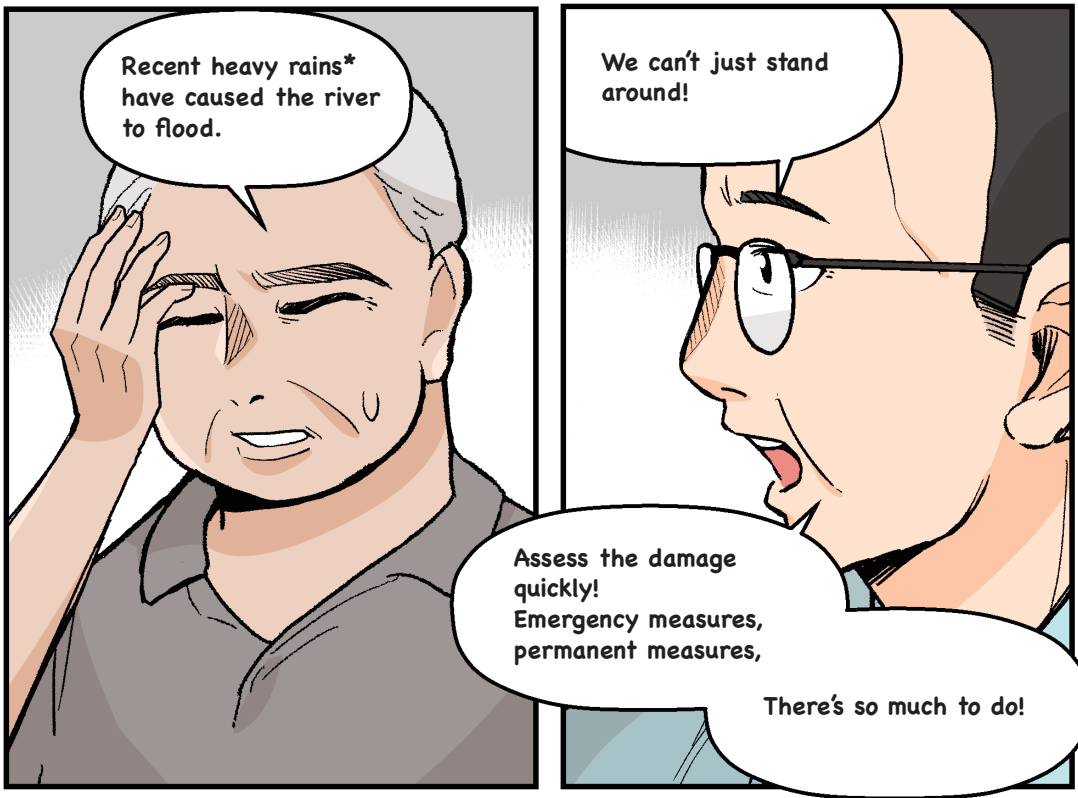

Bindu Shamsher Rana from the Department of Roads
We must complete the Sindhuli Road —no matter what!
He was the project manager form the start and remained committed even after project's completion.
Working on site, he earned the trust and respect of both staff and local communities,
His responsibility and dedication were crucial to the project's success
I'll negotiate with the Maoists on behalf of the government!

Rana kept communicating both officially and unofficially with the Maoists,

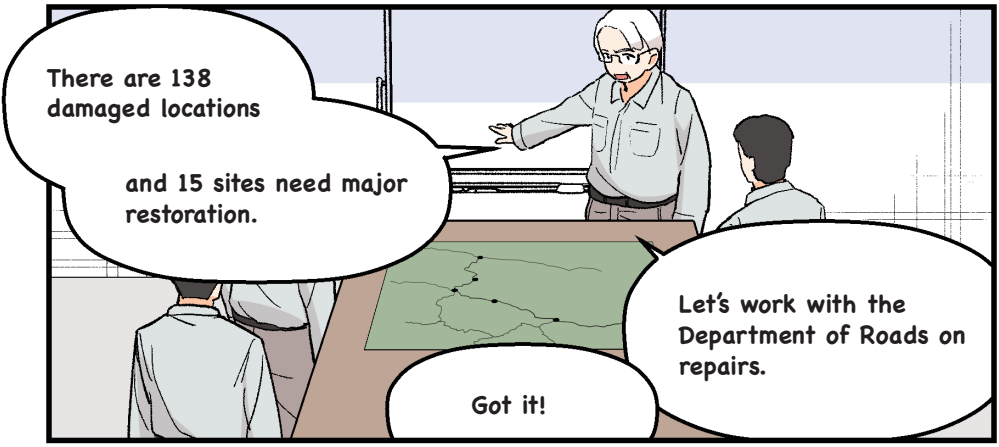
putting himself in real danger.



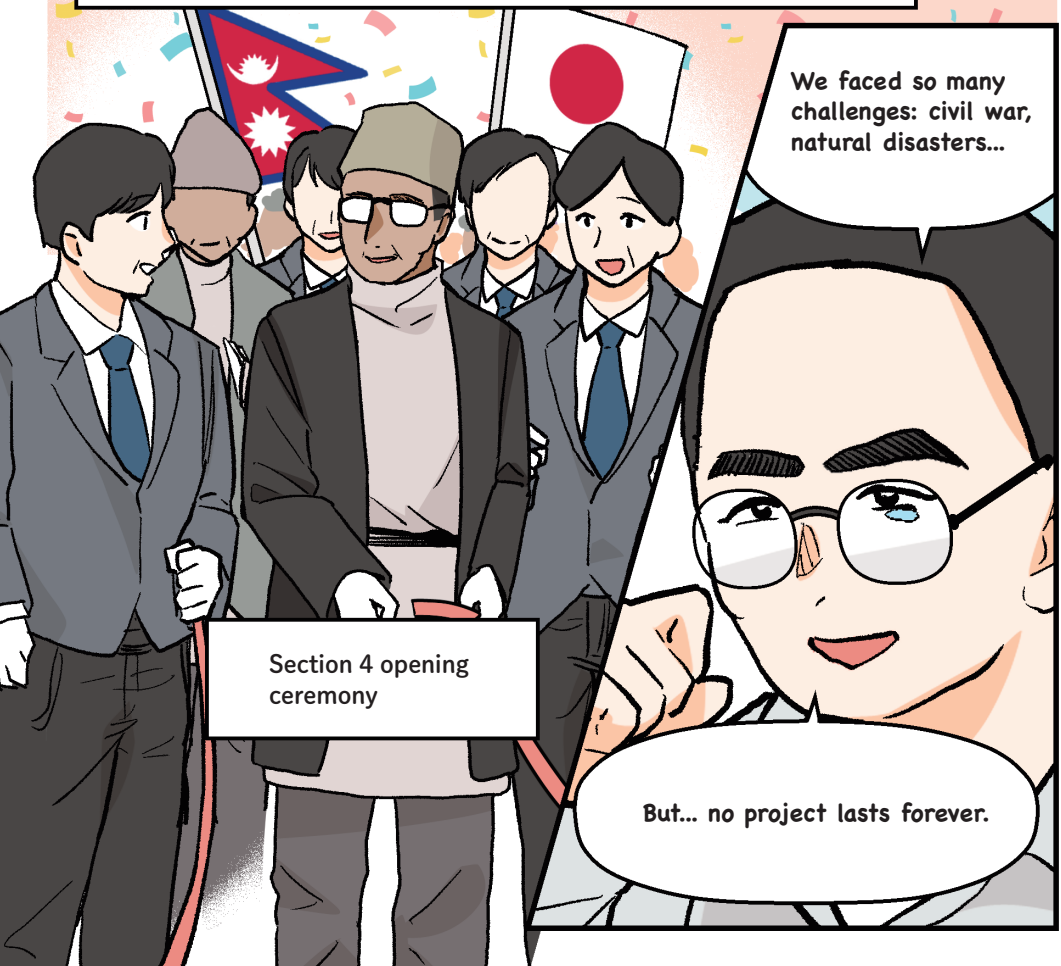




* In July 2002, record-breaking rains damaged infrastructure across Nepal.



Despite worsening security and delayed repairs, Section 4 was finally completed in Feb. 2005.

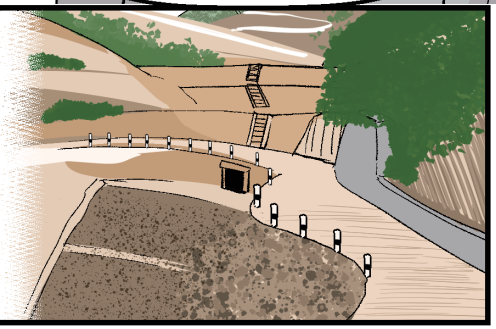


2001: Start of Section 2

Section 2 crosses steep mountains and seismic zones,

including 8 landslide sites—the toughest part. To tackle this, we'll need…"

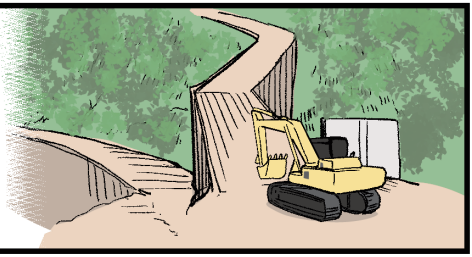
High embankments — about 190,000 m³ of soil, equivalent to 32,000 10-ton truckloads, were used to fill and shape the valley.

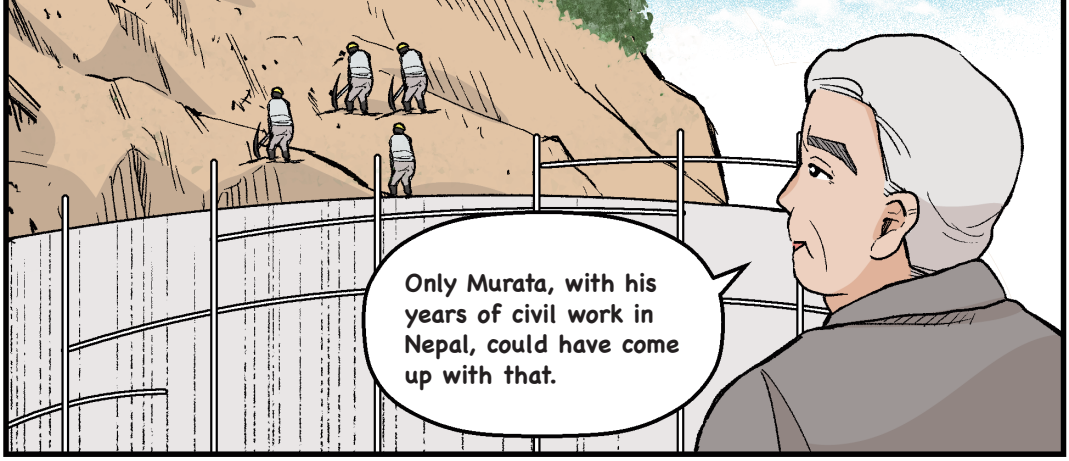


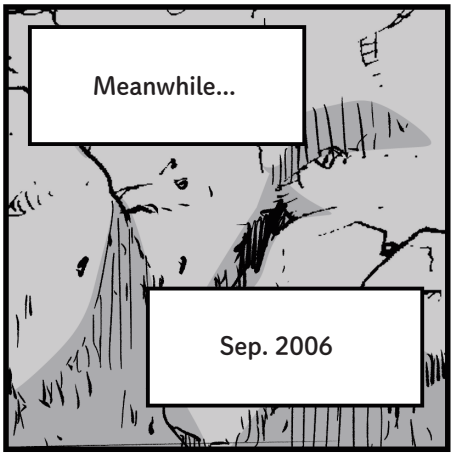
Culverts were built to allow debris to pass through and prevent road blockages.

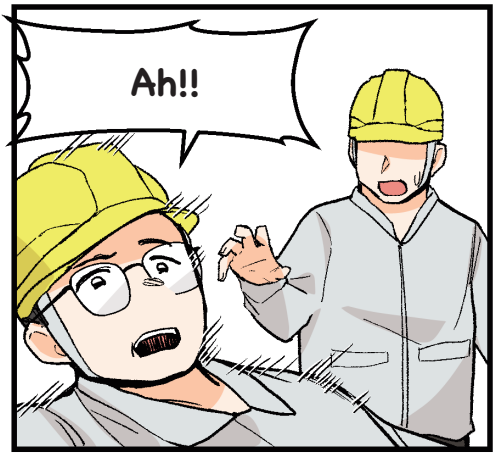
Around them, 16 m high reinforced retaining walls were constructed for earthquake resistance.

Temporary roads were also built to bring in heavy machines.




Only Murata, with his years of civil work in Nepal, could have come up with that.

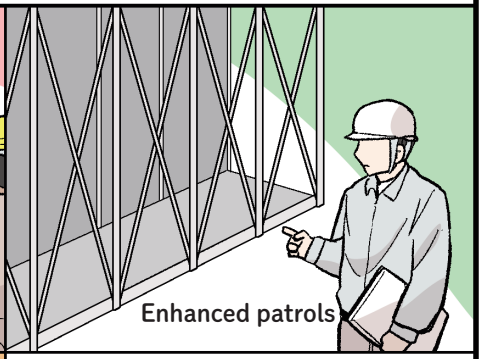

Meanwhile...
Sep. 2006

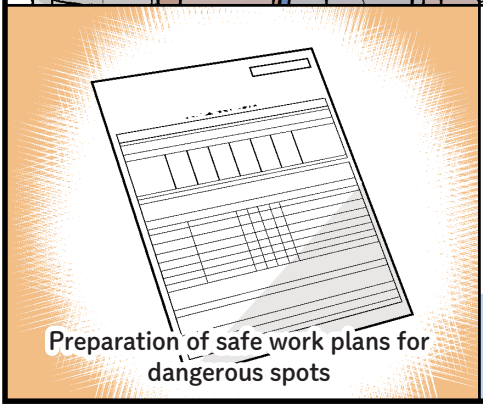

Ah!!

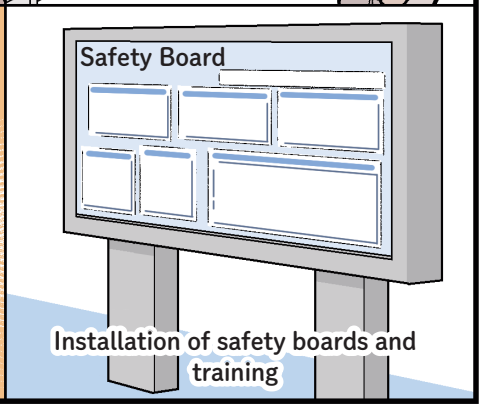

A worker died from a fall.


We had training, guidance, regular safety meetings.
Everyone was so careful about safety...
Then why did this happen!?
Can we really keep going after this...?
There must be more we can do!
Let's do everything we can to make sure this never happens again.

A joint survey team from Nippon Koei and Hazama-Taisei introduced enhanced safety measures.





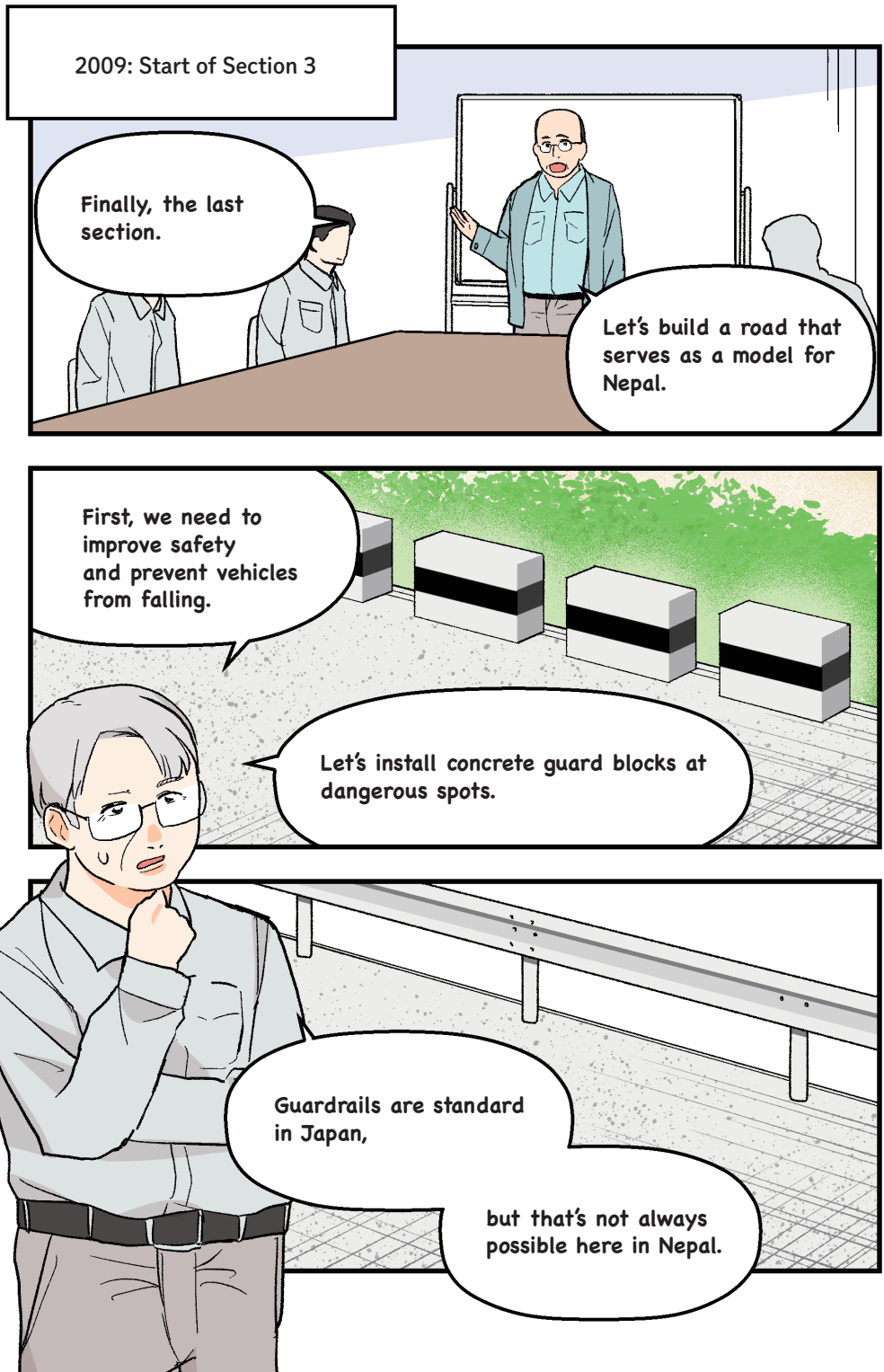


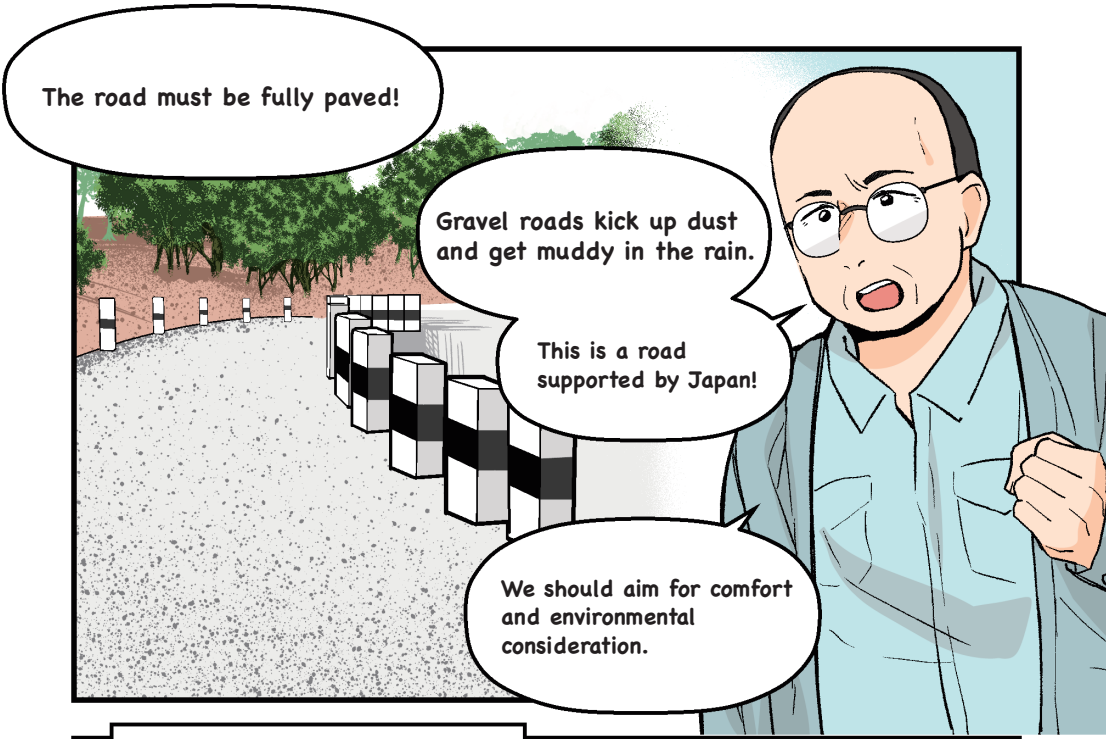
As a result, Section 3's first half achieved 4.8 million hours.

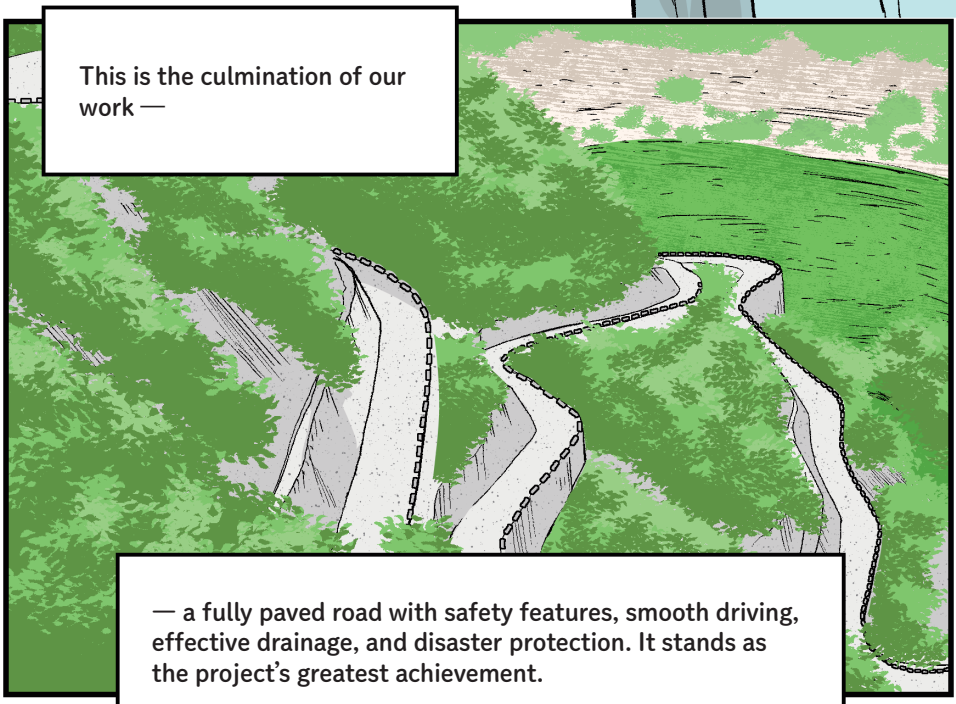
पहिले सुरक्षा
Safety First

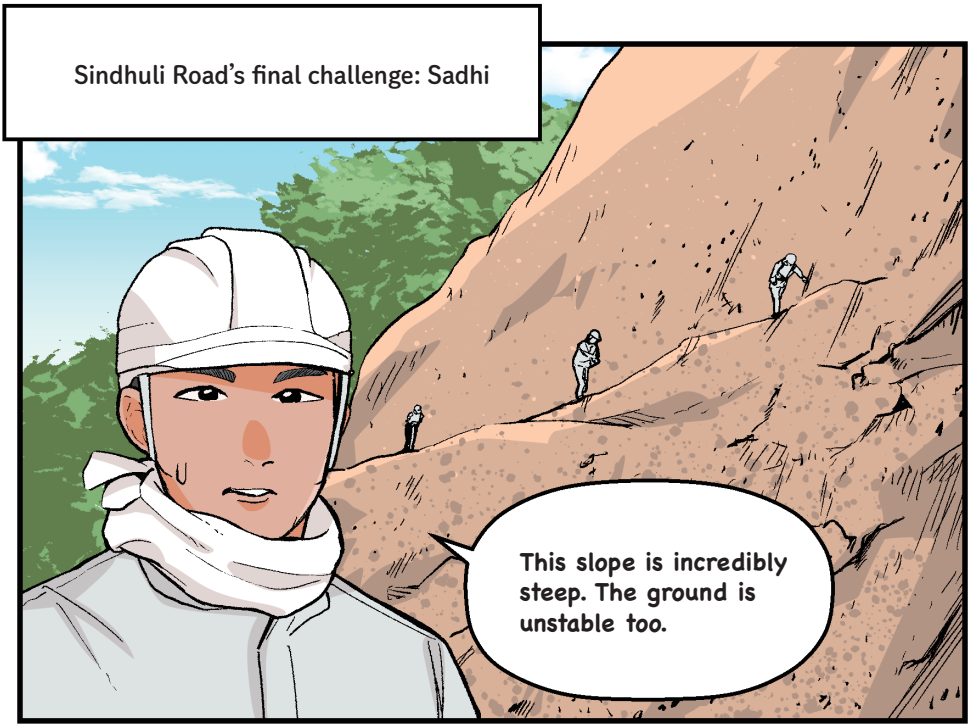
In the latter half, a record of 4.5 million hours of accident-free work was achieved.

*Achieving 2.3 million accident-free hours of road construction qualifies for official recognition.

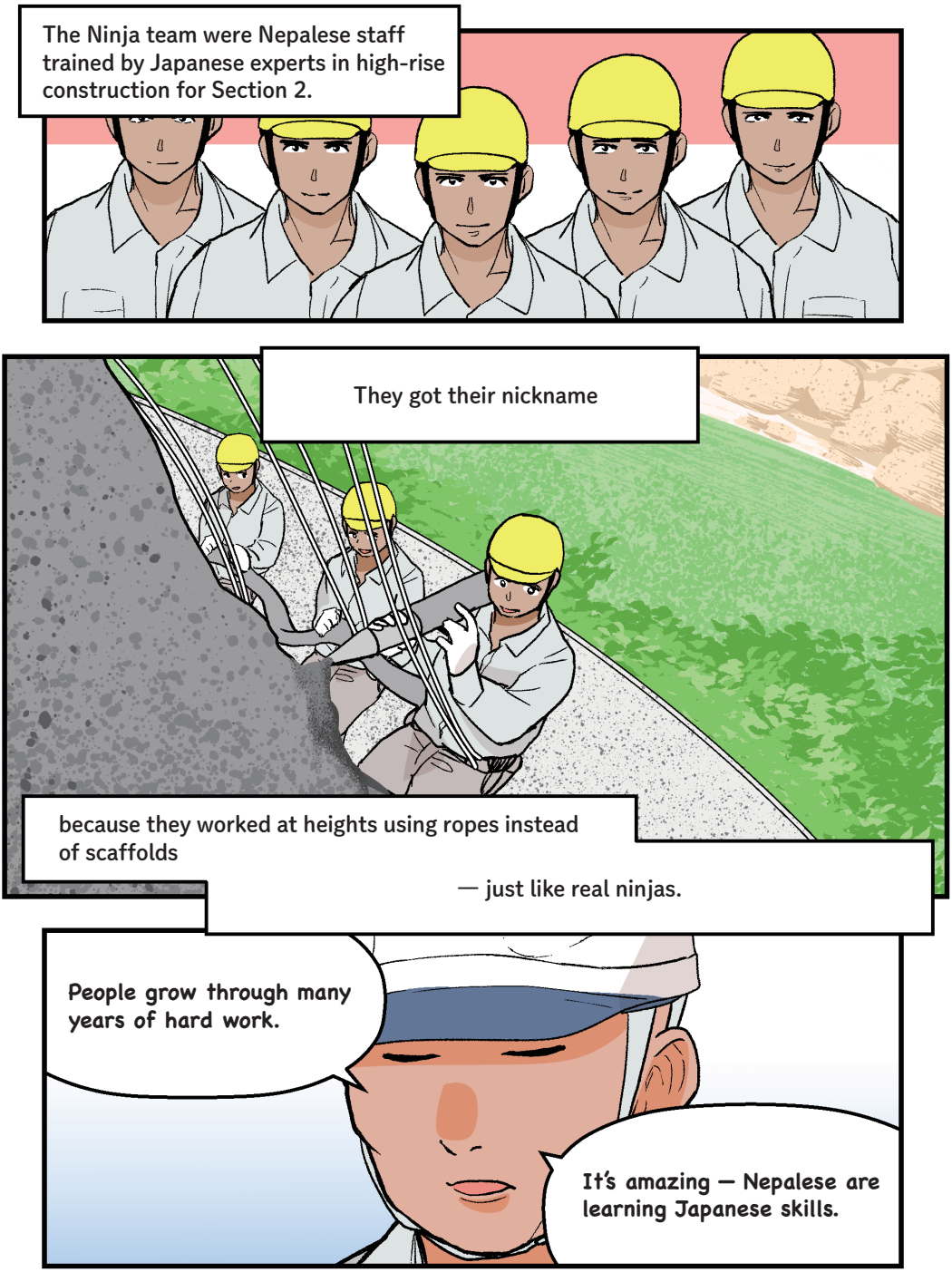

2009: Start of Section 3
Finally, the last section.
Let's build a road that serves as a model for Nepal.
First, we need to improve safety and prevent vehicles from falling.
Let's install concrete guard blocks at dangerous spots.
Guardrails are standard in Japan,
but that's not always possible here in Nepal.


The road must be fully paved!
Gravel roads kick up dust and get muddy in the rain.
This is a road supported by Japan!
We should aim for comfort and environmental consideration.

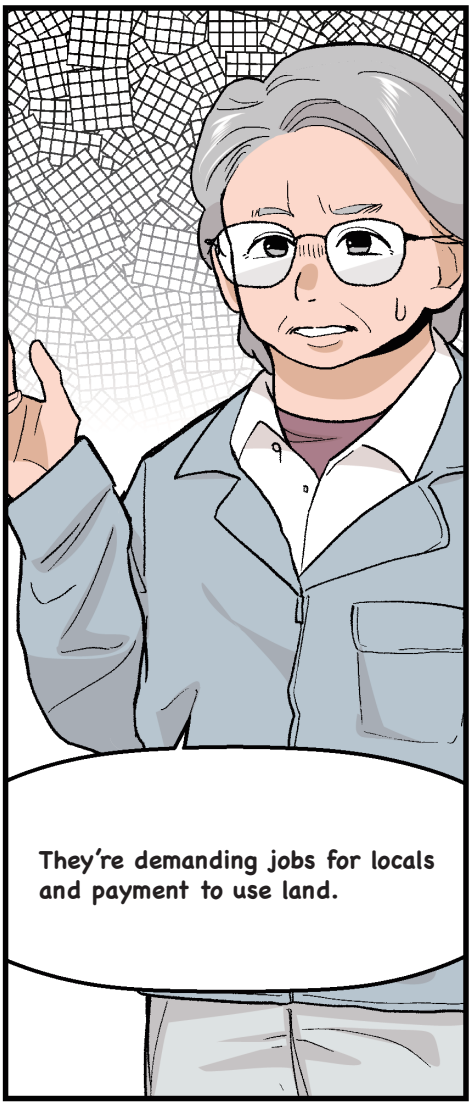

This is the culmination of our work —
— a fully paved road with safety features, smooth driving, effective drainage, and disaster protection. It stands as the project's greatest achievement.


Sindhuli Road's final challenge: Sadhi
This slope is incredibly steep. The ground is unstable too.


We'll call the "Ninja team"
where the slopes are too steep for machines to reach.

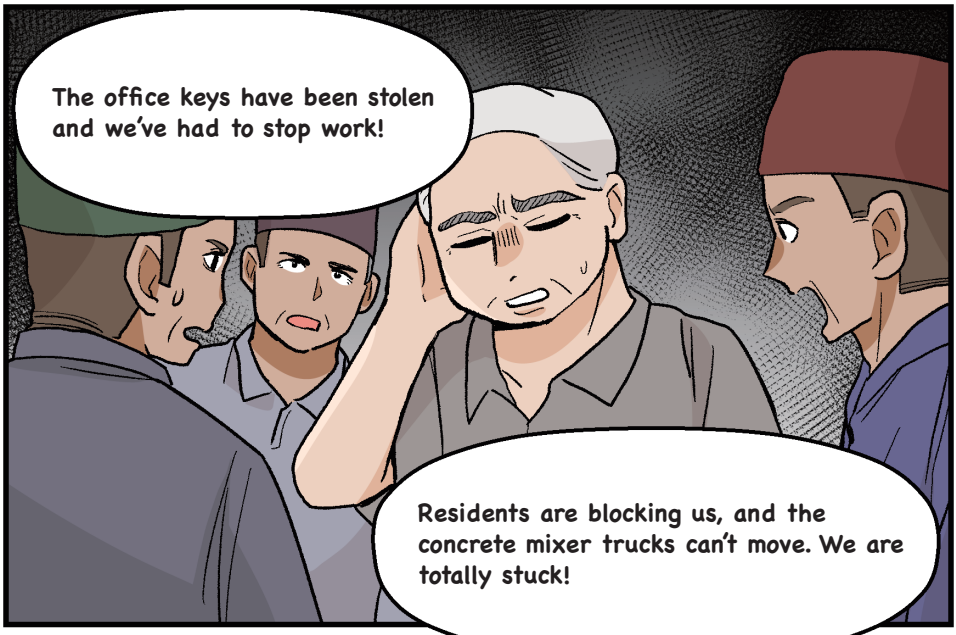

The Ninja team were Nepalese staff trained by Japanese experts in high-rise construction for Section 2.
They got their nickname
because they worked at heights using ropes instead of scaffolds
— just like real ninjas.
People grow through many years of hard work.
It's amazing — Nepalese are learning Japanese skills.

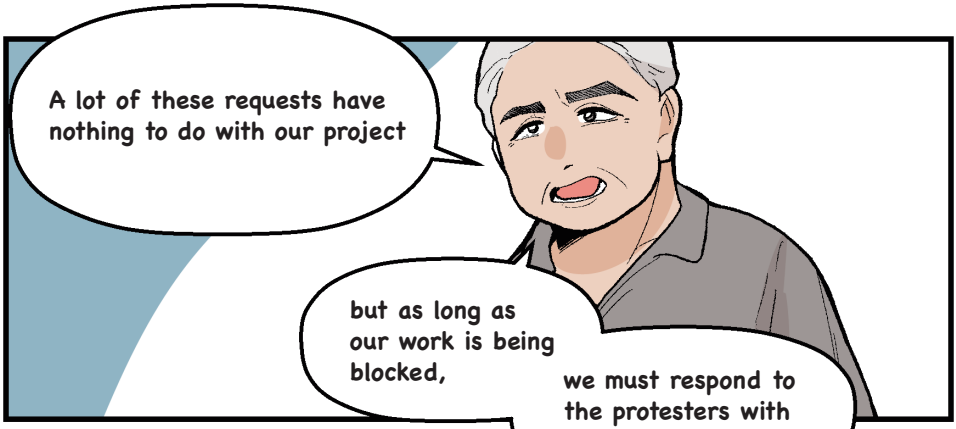
Meanwhile, demands from local residents increased.

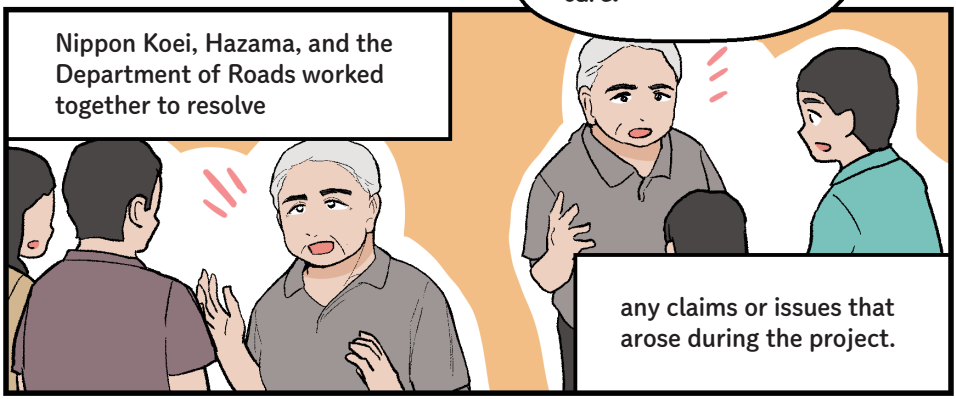


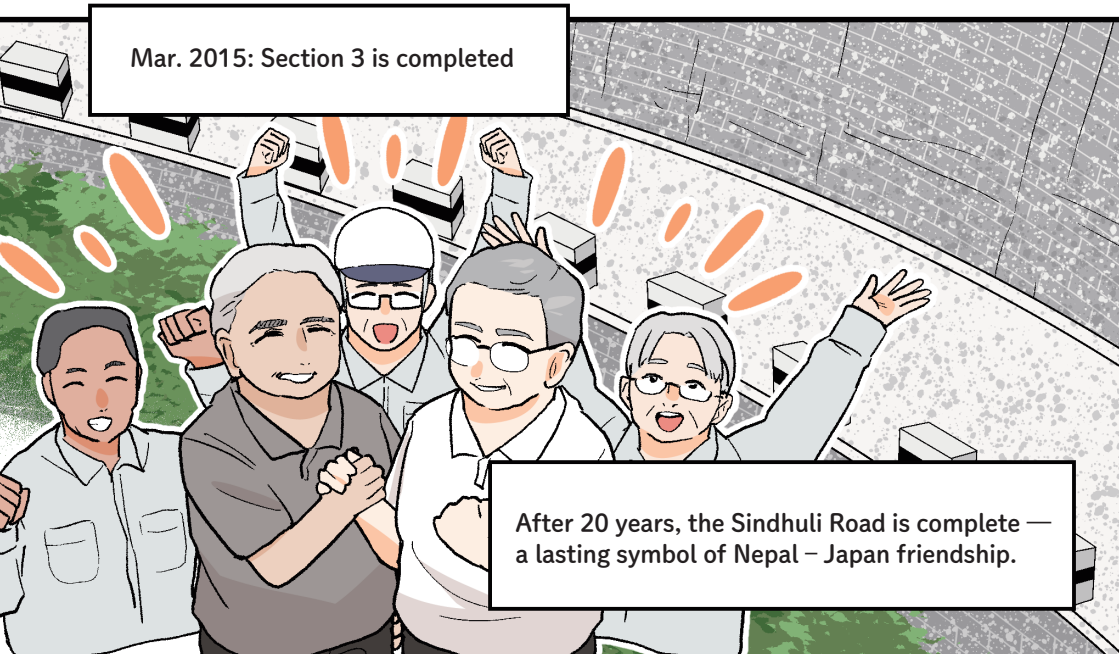
The rise in local demands was partly due to the intensification of pro-democracy movements following the king's suspension of parliament in 2005.

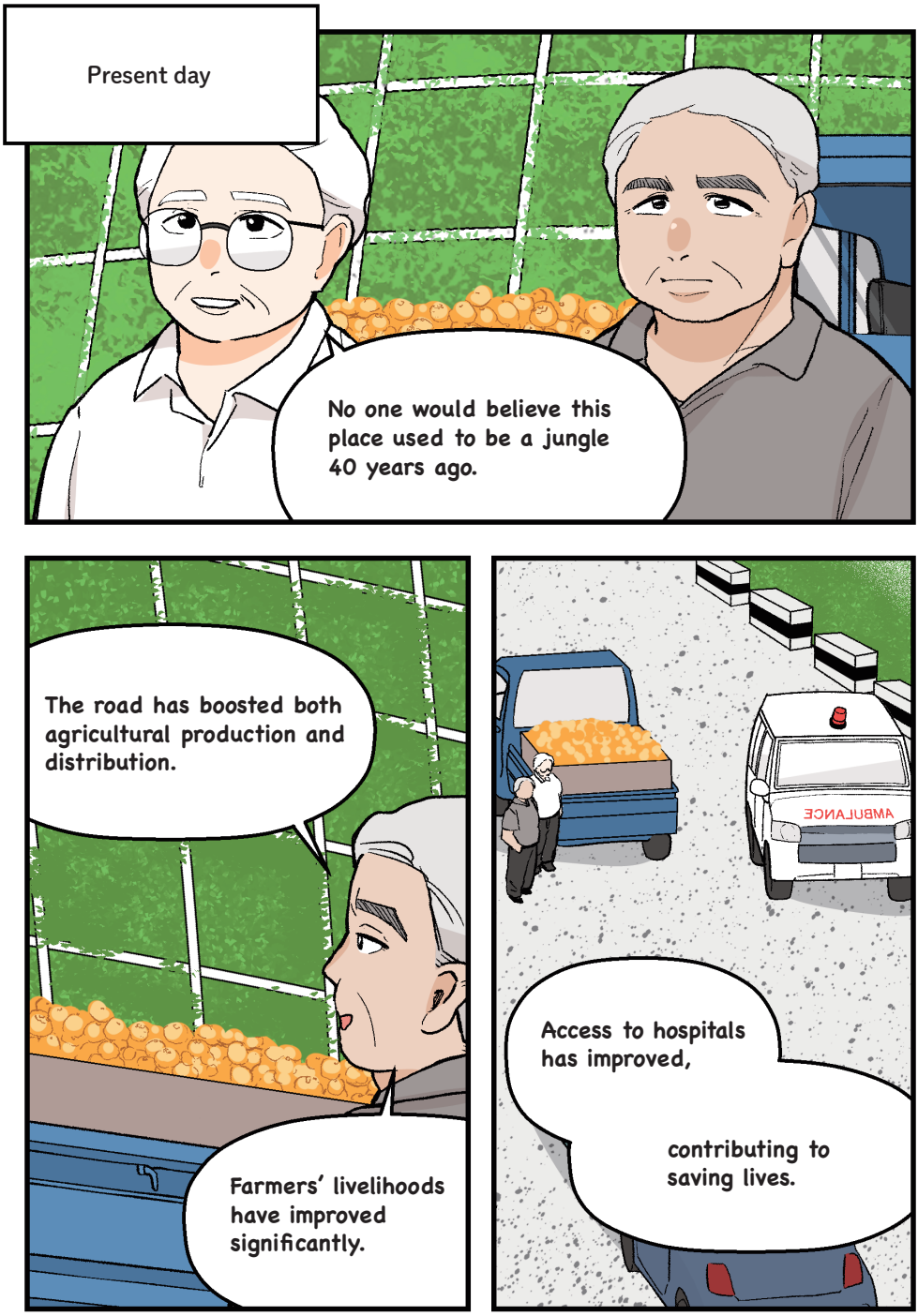
After the civil conflict ended in 2006, and as nation-building continued, the voices of the people gradually grew stronger.

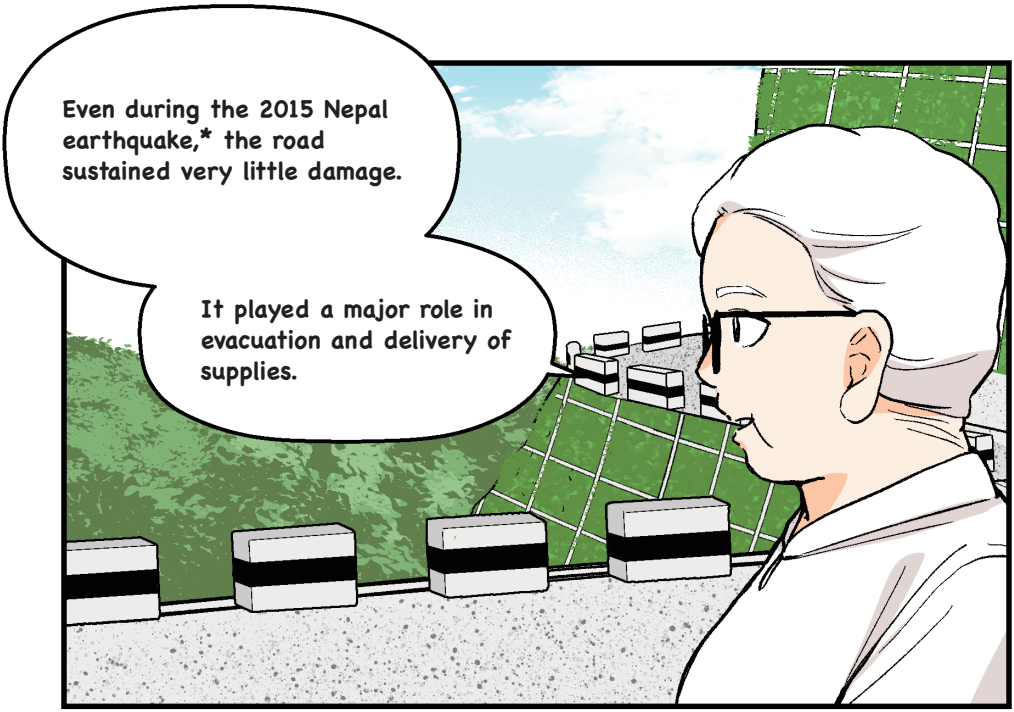


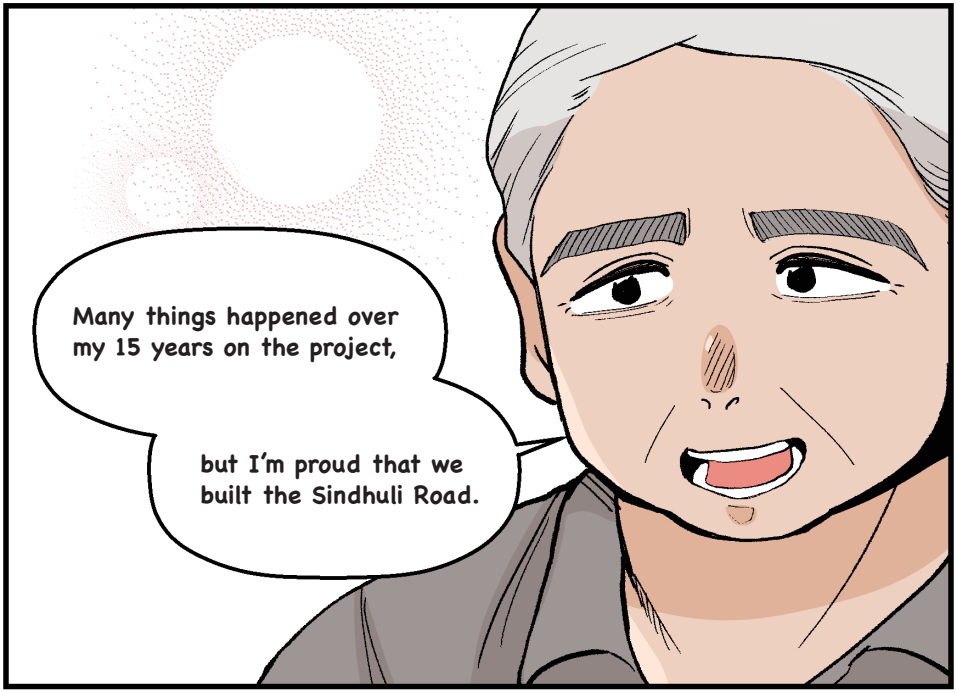

A lot of these requests have nothing to do with our project
but as long as our work is being blocked,
we must respond to the protesters with care.


Nippon Koei, Hazama, and the Department of Roads worked together to resolve
any claims or issues that arose during the project.

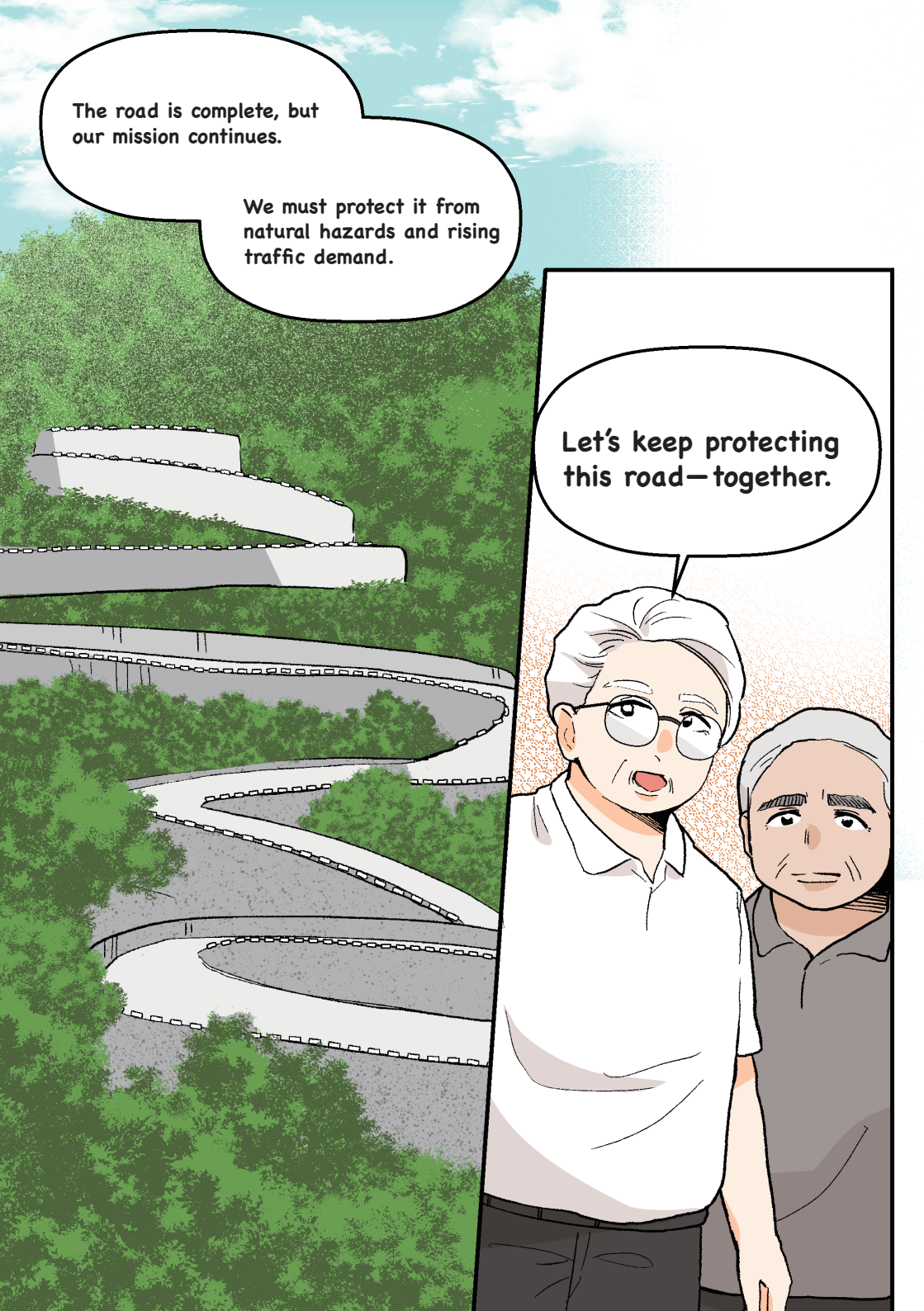

Mar. 2015: Section 3 is completed
After 20 years, the Sindhuli Road is complete — a lasting symbol of Nepal – Japan friendship.


Present day
No one would believe this place used to be a jungle 40 years ago.
The road has boosted both agricultural production and distribution.
Farmers' livelihoods have improved significantly.
AMBULANCE
Access to hospitals has improved,
contributing to saving lives.





* 2015 Nepal earthquake (Gorkha earthquake)
A quake in central Nepal that claimed approximately 9,000 lives and caused extensive damage across the country.

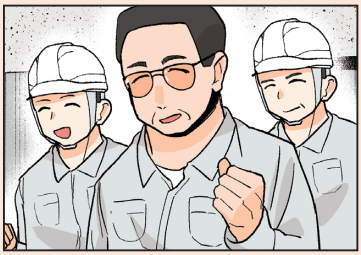

The road is complete, but our mission continues.
We must protect it from natural hazards and rising traffic demand.
Let's keep protecting this road—together.

JICA
Japan International Cooperation Agency

The Japan International Cooperation Agency (JICA) aims to promote international cooperation and provide assistance to developing countries, as a sole Japanese governmental agency in charge of Official Development Assistance (ODA) implementation. "Leading the World with Trust" as its vision, JICA, with its partners, will take the lead in forging bonds of trust across the world, aspiring for a free, peaceful and prosperous world where people can hope for a better future and explore their diverse potentials.

Developing roads supports people's lives and promotes national economic development

In Nepal, roads are vital lifelines but often disrupted by natural disasters. With Japanese cooperation, the Sindhuli Road — also known as BP Highway (NH13) — was constructed as an alternative route to India, fulfilling a long-awaited national goal.
Despite numerous challenges, including steep mountain terrain, difficult construction conditions, natural disasters, democratization movements, insurgency, and accidents, Nepal and Japan worked together to overcome obstacles and complete the road.
JICA ensured smooth project implementation through environmental and social consideration, community consensus-building, and coordination. Even after completion, JICA continues supporting operation, maintenance, and disaster recovery, contributing to better livelihoods and Nepal's economic development.



For more information please check this out!

Making the Sindhuli Road more disaster-resilient

In September 2024, record-breaking rainfall — the heaviest since 1970 — hit Kathmandu and eastern Nepal, triggering landslides and floods that claimed about 250 lives and severed major roads.
The Sindhuli Road was also damaged, with washouts and slope failures at 72 locations over 38 km due to river flooding.
Nepal's Department of Roads carried out temporary repairs such as detours, but full recovery has been difficult.
Japan provided grant aid for restoration, leveraging its disaster prevention expertise to rebuild quickly and strengthen resilience in 2025.
Building more resilient roads that withstand increasing disasters from climate change will ensure safer transport of people and goods and contribute Nepal's socio-economic development.

Check out
the Project History Book
here

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Issued in : January 2026

This manga is an adaptation of a non-fiction book titled "A Road to the Future: The 40-Year History of Nepal's Sindhuli Road" by Haruko Kamei.