

## CONNECTING COMMUNITIES, ENSURING SAFETY: JICA NEPAL'S ROLE IN SUSTAINABLE TRANSPORT DEVELOPMENT

JICA Nepal has been supporting the Government of Nepal for promoting safe and sustainable transportation in Nepal through various initiatives like conducting master plan studies for transport management and system improvement in Kathmandu, providing aid for construction of highways, bridges, intersection improvements, transport capacity improvement, promotion of road safety awareness, etc.

In urban mobility, the ongoing support for the Development Study on "Kathmandu Valley Urban Transport System Master Plan" will strengthen planning and coordination for a modern transport network.

Nepal-Japan collaboration has delivered world-class infrastructure. Some of which are as below.

### NAGDHUNGA TUNNEL: A PIONEERING ACHIEVEMENT IN NEPAL'S ROAD INFRASTRUCTURE



*Nagdhunga Tunnel-Eastern Portal*



*Nagdhunga Tunnel -Western Portal, Dhading*

The Nagdhunga Tunnel Construction Project, Nepal's first tunnel highway, spans 2.68 km with an additional 2.87 km of approach road. Financed through an ODA loan from Japan, with JICA providing approximately JPY 16.636 billion, the project began in October 2019 to improve transportation around the Nagdhunga Pass and strengthen connectivity between Kathmandu and other

regions. Once operational, the tunnel will cut travel time through the congested pass by up to two-thirds, enhance road safety, and reduce risks from landslides and geological hazards. Additionally, it will lower carbon emissions by reducing vehicle idling and travel delays, contributing to environmental sustainability while supporting Nepal's social and economic growth.





### KATHMANDU BUS TERMINAL, GONGABU-1991 (GRANT AID PROJECT)

Operational since 1993, this terminal—built with JPY 786 million in Japanese Grant Aid—handles 1,500 buses daily, easing traffic and stimulating economic activity around Kathmandu.

### BAGMATI BRIDGE, KUPONDOL -1993 (GRANT AID PROJECT)

To address severe congestion and restore connectivity between Kathmandu and Lalitpur, JICA funded the New Bagmati Bridge Project (JPY 1.29 billion). It introduced Nepal's first modern traffic signals and improved intersections, creating a reliable link between Kathmandu and Lalitpur.



### KATHMANDU CITY BRIDGE PROJECT -1990 (GRANT AID PROJECT)

Between 1990 and 1993, JICA reconstructed 10 critical bridges under a grant of JPY 1.85 billion. These bridges were designed to withstand flooding and heavy traffic, ensuring safe and efficient mobility across the valley.



### KATHMANDU-BHAKTAPUR ROAD- 2008 (GRANT AID PROJECT)

Completed in 2011, this 9.1 km, 4-lane road reduced travel time from 48 to 20 minutes. Built with JPY 2.6 billion in grant aid, it strengthened connectivity to major highways and boosted trade and urban development.



### **SINDHULI ROAD (B.P. HIGHWAY) - 1995 (GRANT AID PROJECT)**

Nepal's largest grant-assisted project (NPR 22 billion), this 160 km highway connects Kathmandu to the Eastern Terai, cutting travel time from 9 to 5 hours. Operational since 2015, it has transformed regional mobility and economic opportunities.

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### **REHABILITATION OF SINDHULI ROAD (BP HIGHWAY)**

Government of Nepal and JICA have signed Grant Agreement to provide Grant Aid up to 2.8 billion Japanese Yen (NPR 2.6 billion) for the "Emergency Rehabilitation of Sindhuli Road Affected by Floods", on October 30, 2025.



Between September 26 and 28, 2024, torrential rainfall in Nepal caused severe flooding and landslides, significantly damaging few sections of the Sindhuli Road—a vital route connecting Kathmandu to the Eastern Terai.

The Grant Aid is expected to support the Government of Nepal's effort to strengthen the disaster resilience of the Sindhuli Road and reinstate from the damages for efficient operation.

### **KATHMANDU SET FOR URBAN MOBILITY WITH JICA LOAN FOR KOTESHWOR INTERSECTION UPGRADE**

Government of Nepal and JICA have signed Agreement to provide Official Development Assistance (ODA) loan up to 34.49 billion Japanese Yen (approx. NPR 31.76 billion) for the "Koteshwor Intersection Improvement Project", on December 03, 2025.

The eight-year project is led by the Ministry of Physical Infrastructure and Transport and implemented by the Department of Roads. It is financed through a concessional loan, repayable over 40 years, with a 10-year grace period and an annual interest rate of 0.2%.

With this project, Kathmandu, Lalitpur and Bhaktapur districts are set for a major traffic upgrade, aimed at easing congestion and improving traffic flow at three critical junctions—Tinkune, Koteshwor, and Jadibuti. The project will introduce grade-separated structures, a move expected to significantly reduce bottlenecks at major intersections and enhance urban mobility.

Officials highlight that the initiative will not only improve transportation efficiency and ease congestion but also contribute to driving economic growth and urban development in the Kathmandu Valley.

The planned upgrade is expected to significantly mitigate traffic congestion along one of Kathmandu's busiest corridors, enhancing connectivity and improving the daily commuting experience for thousands of people. This project represents a critical step toward building a sustainable, efficient, and modern transportation network for Nepal's future.

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JICA's projects have gone far beyond simply building roads. They have significantly improved safety and reduced travel time for commuters, while also enhancing disaster resilience to ensure communities remain connected during emergencies. In addition, they have boosted trade and economic growth by facilitating smoother transportation and logistics. Furthermore, the introduction of modern design standards and technology transfer has laid the foundation for future infrastructure projects, ensuring long-term sustainability and innovation.

Together, we are building safer roads, smarter cities, and a sustainable future.



## PROMOTING SAFER BUILDING CONSTRUCTION IN NEPAL: A SUCCESSFUL COMPLETION OF THE BUILDING CODE COMPLIANCE PROJECT



*Training Participants of NBCC project visiting facility in Japan*



*Master Training of Trainers (ToT) program for engineers by Project for Promotion of Nepal National Building Code Compliance for Safer Building Construction (NBCC) project*

The Project for Promotion of Nepal National Building Code Compliance for Safer Building Construction, implemented by the Department of Urban Development and Building Construction (DUDBC) with technical cooperation from JICA, has officially concluded after four years of impactful work. Launched in April 2021, the project aimed to strengthen earthquake safety by improving compliance with the Building Code—a critical step toward reducing disaster risks in Nepal's rapidly urbanizing regions.

### BACKGROUND AND NEED

Following the devastating 2015 earthquake, Nepal witnessed a shift from masonry to reinforced concrete structures. However, widespread non-compliance with building codes persisted, particularly in hidden structural elements such as beam-column joints and concrete ratios. This gap stemmed from limited awareness among building owners and contractors, weak inspection capacity in municipalities, and inadequate supervision by engineers. Addressing these challenges became the cornerstone of the project.

### KEY ACTIVITIES AND OUTPUTS

The Project has developed Building Construction Working Procedure (BCWP) to standardize and create uniformity of building construction approval, supervision and quality control by municipalities all over Nepal. This project also developed other guidelines, manuals, and training textbooks, ensuring clarity and consistency in implementation for Implementation of BCWP. The BCWP has been approved recently by the Ministry of Urban Development as Manual for Building Construction Working Procedure.

The project also established training mechanism for municipal officials, engineers, and contractors, complemented by a "Training of Trainers" approach and on-the-job training in 7 pilot municipalities inside Kathmandu Valley. Over 900 technical person received various types of training from the project in Nepal. Similarly, 24 officials from federal and local governments received international exposure through training in Japan which enriched participants' understanding of global best practices in building confirmation and inspection.

The project also prepared draft policy for improvement of incentive mechanism creating framework for long-term sustainability.

### IMPACT AND WAY FORWARD

By strengthening compliance mechanisms and building local capacity, the project has laid a solid foundation for safer urban development in Nepal. The introduction of Manual for Building Construction Working Procedure marks a significant step toward resilience against future earthquakes. Moving forward, the challenge lies in disseminating the manual and scaling these achievements nationwide and ensuring sustained enforcement of the Building Code.

As Nepal continues its journey toward resilient cities, this project stands important collaboration between JICA and GoN demonstrating that proactive measures can save lives and protect communities.

Link: [भवन निर्माण मार्गदर्शन?, २०८२ | Department of Urban Development and Building Construction](#)

## BUILDING RESILIENCE TOGETHER: REKV PROJECT SUCCESSFULLY COMPLETED!

Nepal has long been vulnerable to disasters, particularly earthquakes and floods, which pose significant risks to lives, infrastructure, and economic development. Strengthening disaster risk governance is therefore critical to building a safer and more resilient nation. In this context, the Japan International Cooperation Agency (JICA), in close collaboration with the National Disaster Risk Reduction and Management Authority (NDRRMA), launched "The Project for Strengthening Disaster Risk Governance for Resilience in the Kathmandu Valley (REKV)" in January 2021.

After nearly five years of dedicated efforts, the project has successfully concluded with the Final Joint Coordinating Committee (JCC) Meeting officially endorsing that all project indicators have been successfully achieved. This marks a significant step forward in Nepal's journey toward disaster resilience.

### KEY ACHIEVEMENTS OF THE REKV PROJECT

The REKV Project focused on improving institutional capacity, policy implementation, and local-level resilience. Its major accomplishments include:

#### Institutional and Human Resource Development Plans for NDRRMA

Comprehensive plans and recommendations were developed to strengthen NDRRMA's and enhance the skills of its personnel, ensuring effective disaster risk governance.

#### Monitoring and Reporting System for the DRR National Strategic Plan of Action (2018–2030)

A system was established to track progress and ensure accountability in implementing Nepal's long-term disaster risk reduction strategy.

#### Identification of High-Priority DRR Projects and Budget Allocation

The project facilitated the prioritization of critical disaster risk reduction initiatives inside Kathmandu Valley and facilitated to secure necessary financial resources for their implementation.

#### Local-Level Capacity Building through LDCRF Guideline

The formulation and dissemination of the Local Disaster and Climate Resilience Framework (LDCRF) guideline empowered municipalities to integrate disaster and climate resilience into local planning and development processes.

Link to LDCRF Guideline [NDRRMA](#)

### ENSURING SUSTAINABILITY FOR RESILIENT NEPAL

To maintain momentum beyond the project's completion, NDRRMA and the JICA Expert Team have jointly prepared an annual facilitation schedule to promote DRR projects among ministries and local levels.

By enhancing governance, building institutional capacity, and empowering local levels, Nepal is now better prepared to face future disasters. Together, we continue the journey toward a safer, more resilient Nepal.



*Training Participants from Nepal visiting flood affected sites in Japan*



*On November 9, 2025, the Final Joint Coordinating Committee (JCC) Meeting endorsed that all project indicators have been successfully achieved!*



## EMPOWERING TEACHERS FOR IMPROVED TEACHING AND LEARNING!



*Participants discussing about multiplication using Handbook and Workbook in Dhading.*

The Project for the Improvement of Basic School Education (IBSE), in collaboration with JICA and the Education Development and Coordination Unit (EDCU), organized a Cluster-Level Workshop on Orientation Materials (OM) in Jwalamukhi (Dhading) and Putali Bazar (Syangja). From Nov 3–6, 53 teachers from 29 schools participated in Dhading, and from Oct 31–Nov 6, 85 teachers from 45 schools joined in Syangja.

The workshop aimed to enhance early grade teachers' math and pedagogy skills using resources like Student Workbook, Teacher's Guide, and audiovisual tools. It emphasized hands-on learning with local materials, pair learning, and practical integration of OM into classroom practice.

"This training allowed me to use the ideas immediately. Simple activities and bottle caps made math easier!" said Tanka Bahadur Karki. "The videos showed how to make math engaging without expensive materials," added Pratima Regmi Aryal.

These workshops are a step toward student-centered, activity-based learning and stronger teacher collaboration.

## ADVANCING WASH IN NEPAL: EMPOWERING NEPAL'S WATER FUTURE THROUGH HIROSHIMA'S EXPERTISE



*Site Visit to Pokhara Water Treatment Plant*

The Hiroshima Waterworks Bureau, in collaboration with JICA Chugoku Center, conducted a follow-up mission in Nepal to engage alumni of the Knowledge Co-Creation Program (KCCP), which has been running for over 20 years. Hiroshima Waterworks Bureau has been receiving trainees from Nepal and with this visit they will further improve the training based on observation.

The mission team visited water supply facilities in Kathmandu and Pokhara, interviewed alumni on implementing their Action Plans, and assessed Nepal's water utility management practices. Additionally, the team delivered a special lecture on leakage control and construction management to government officials, fostering knowledge exchange.

JICA reaffirmed its commitment to supporting Nepal's WASH sector through continued sharing of Japanese water utility expertise via KCCP training.

## REHABILITATION AND RECOVERY FROM NEPAL EARTHQUAKE - LIVELIHOOD RECOVERY (2015-2019)



*Vegetable Farmers in Sindupalchowk*

After the devastating earthquake of 2015, JICA supported the government and people of Nepal in various areas of post-earthquake recovery and reconstruction.

The Project on Rehabilitation & Recovery from Nepal Earthquake (RRNE) was launched only two months after the earthquake and provided multi-dimensional support including livelihood recovery. It assisted in improving livelihoods for the earthquake affected communities in Gorkha and Sindhupalchowk whose livelihood options were either lost or damaged in the 2015 Gorkha earthquake. Over 1,200 beneficiaries have received the support of which 78% of them are women.

Some of the initiatives which were carried out in pilot municipalities in Gorkha and Sindhupalchowk were as follows.

- ▶ Establishment and Enhancement of a Women's Cooperative in Barpak VDC, Gorkha to strengthen its capacity to formulate a foundation of organization which can support the women's participation in the society.
- ▶ Livelihood recovery through Goat Farming for Women in Barpak for improved sustainable productivity.
- ▶ Improvement of Vegetable Farming Practices for Women to increase the production of vegetables for self-consumption and to ensure food security and essential nutrition at times of disasters.
- ▶ Improvement of Maize Farming Practices for Poor Farmers to increase the production of basic grains and contribute to strengthening food security in the disaster-hit areas.



*High Quality Seed Production in Sindhupalchowk*

- ▶ Improvement of Quality Seed Production (Livelihood) to increase the production of quality seeds and contribute to the strengthening of food security.
- ▶ Improvement of Quality Seed Production through construction of Buildings to increase the production of improved seeds to the quality of a certain level and contribute to the food security of the community.

These initiatives has not only restored livelihoods but also empowered communities—especially women—in Nepal's most earthquake-affected regions. By strengthening food security, promoting sustainable farming practices, and fostering cooperative development, these initiatives have laid a resilient foundation for recovery and long-term socio-economic growth.



*Goat Handover to Women's Group in Barpak , Gorkha*



## A TRANSFORMATIVE JOURNEY: BRINGING JAPAN'S URBAN PLANNING INSIGHTS TO BHARATPUR

By Asmita Khanal, Urban Planner, Bharatpur Metropolitan City Office, Nepal



Figure 1. Picture taken with our Flag

I am Asmita Khanal, an urban planner whose professional life has been dedicated to the dynamic and often daunting urban scenario of Bharatpur, Nepal. For nearly a decade, I have navigated the complexities of municipal planning, grappling with rapid urbanization, infrastructural deficits, and the pressing need for sustainable development. It was against this backdrop that I embarked on an extraordinary intellectual and cultural pilgrimage—a 37-day immersion into Japan's urban planning paradigm, under the esteemed Knowledge Co-Creation Program (KCCP) of the Japan International Cooperation Agency (JICA). From September 23 to October 29, 2025, I joined a group of fifteen professionals from across the developing world in Tokyo and Hiroshima, engaging in a rigorous exploration of how Japan has sculpted some of the world's most resilient, efficient, and humane cities.

The training was thoughtfully designed to mix classroom lessons with real-world visits. Each day brought new insights from understanding Japan's legal planning systems to walking through neighborhoods that have been transformed through careful planning. We learned about land-use zoning, disaster-resistant design, community-led development (called *Machizukuri*), and how to create cities that are easy for everyone to use. Experts from universities, government ministries, and planning institutes shared their knowledge, making

complex topics clear and practical. Site visits to places like Akabane (for universal design) and Noborito Station (for transit-oriented development) turned theory into something we could see and touch.

Beyond the formal syllabus, Japan itself was a profound instructor. The country's cultural ethos—a seamless amalgamation of reverence for tradition and relentless pursuit of innovation permeates its urban landscapes. The silent efficiency of Tokyo's metro, the serene order of its public spaces, and the deep-seated respect for collective well-being offered a stark, inspiring contrast to the chaotic urbanism familiar in many developing contexts. Adapting to this milieu required not just logistical adjustment but a cognitive shift, a willingness to embrace *omotenashi* (selfless hospitality) and *kodawari* (meticulous attention to detail). A poignant illustration was our visit to Akabane, a district engineered with profound empathy through universal design. Witnessing tactile paving guiding the visually impaired, and public toilets accessible to all abilities, was a humbling lesson in inclusivity, revealing that true urban advancement is measured by how a city cares for its most vulnerable inhabitants.

This training greatly expanded my understanding of what is possible in urban planning. Before, I often felt limited by a lack of tools or examples. Now, I have a clearer vision of how systematic planning can solve problems like unplanned growth, traffic jams, and poor public spaces. Sessions on land readjustment—a method Japan uses to reorganize land for better infrastructure—were especially useful. I also gained a deeper appreciation for the role of local governments and communities in shaping their own neighborhoods. The training didn't just give me information; it gave me confidence to try new approaches back home.

### SEVERAL LESSONS STOOD OUT AS PARTICULARLY VALUABLE FOR MY WORK IN BHARATPUR:

**Planning at Different Levels:** Japan connects national policies with local plans smoothly. This helps avoid confusion and ensures that everyone is working toward the same goals. In Nepal, where planning can be fragmented, this approach could bring much-needed coordination.





Figure 2. Group photo during field visit

**Designing for Disasters:** Japan faces earthquakes, floods, and typhoons regularly. Instead of just reacting, they plan ahead making stronger buildings, wider evacuation routes, and better warning systems. This proactive thinking is something we need in Nepal, which also faces natural disasters.

**People-Centered Planning:** The concept of Machizukuri emphasizes involving residents in planning their own communities. This leads to projects that are better supported and more sustainable. It's a shift from top-down planning to working together with citizens.

**Transit-Oriented Development:** Japan shows how to build cities around public transport making daily life easier, reducing pollution, and saving time. This is a smart alternative to relying on cars and motorbikes, which are clogging many of our cities.

Beyond the accretion of knowledge, the program fostered an invaluable ecosystem of peer learning. Dialogues with counterparts from Egypt, Ghana, Bangladesh, and elsewhere unveiled both the unique and universal challenges of urban growth in the Global South. These interactions, often extending into late evening reflections, forged bonds of solidarity and collaboration that transcend geographical boundaries. We departed not merely as alumni, but as nodes in a burgeoning international network committed to humane and sustainable urban futures.

Returning to Bharatpur, I am filled with ideas and energy. I plan to take the following steps in my work:

- ▶ Start a pilot project using community participation methods (Machizukuri) to improve a local neighborhood, ensuring residents have a real voice.
- ▶ Propose land readjustment in growing areas to secure land for roads, parks, and utilities in a fair and organized way.
- ▶ Advocate for universal design standards in new building projects, making Bharatpur more accessible to elderly and disabled citizens.
- ▶ Share what I've learned with my colleagues through presentations and training sessions, so that our whole office can benefit from these approaches.

I believe these steps can help make Bharatpur a more organized, green, and people-friendly city.

Beyond the professional lessons, this experience touched me personally. Walking through Hiroshima a city rebuilt from terrible destruction into a symbol of peace and sustainability gave me hope. Seeing how patient, long-term planning can heal and transform a place left a deep impression. I also remember the lively discussions with my fellow participants, the kindness of our Japanese guides, and the quiet beauty of well-maintained public parks. These memories remind me that good planning is not just about buildings and roads it's about creating a better quality of life.

My training in Japan was a turning point. It opened my eyes to new possibilities and gave me practical tools to contribute more effectively to my city. I am deeply grateful to JICA, the Government of Japan, and my own office for this incredible opportunity. To other professionals working in cities across the developing world, I strongly recommend seeking out such learning experiences. They provide not only knowledge but also inspiration and renewed commitment. I return to Bharatpur with a sense of responsibility and excitement, ready to put these lessons into practice and help build a city that future generations will be proud of.



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