

A Model Road for New Nepal The Kathmandu-Bhaktapur Road



The Kathmandu-Bhaktapur Road is part of the Arniko Highway that connects Kathmandu, nation's capital center of politics, economy and administration, with the ancient cities of Bhaktapur and Madhyapur Thimi, situated in the east of the Kathmandu valley. These three cities are popular tourist destinations and get thousands of visitors every year. The Kathmandu-Bhaktapur section starts at Tinkune in Kathmandu and ends at Suryabinayak in Bhaktapur passing through Madhyapur Thimi.

The vehicle registration in Nepal has seen a steep rise during recent years. As a consequence, traffic congestion in Kathmandu has become very severe especially during morning and evening peak hours. This situation is expected to become worse in the coming days. The road section from Tinkune to Bhaktapur has one of the highest traffic volumes (50,000 vehicles per day as of the traffic count of 2007) among the trunk roads in Nepal. Furthermore, after the completion of JICA supported Sindhuli Road, it is anticipated that the incoming and outgoing of additional vehicles will further increase the traffic flow in this section of the road. As a result, the widening of the Kathmandu-Bhaktapur road section was implemented.

The Kathmandu-Bhaktapur Road Improvement Project

The Kathmandu-Bhaktapur road project was initiated after the preliminary study by JICA team in December 2005 upon a request made by the Government of Nepal (GoN). The Initial Environment Examination (IEE) was approved by the GoN on July 3, 2006. The JICA Basic Design study for this project was completed in June 2007, which proposed following interventions:

- Widening of existing road between Kathmandu (Tinkune Intersection) and Bhaktapur (Suryabinayak Intersection)
- Construction of new bridges: Manohara and Hanumante
- Improvement of intersections at Jadibuti, Gathghar, Thimi, Sallaghari, and Suryabinayak
- Provision of lay-by for bus stops

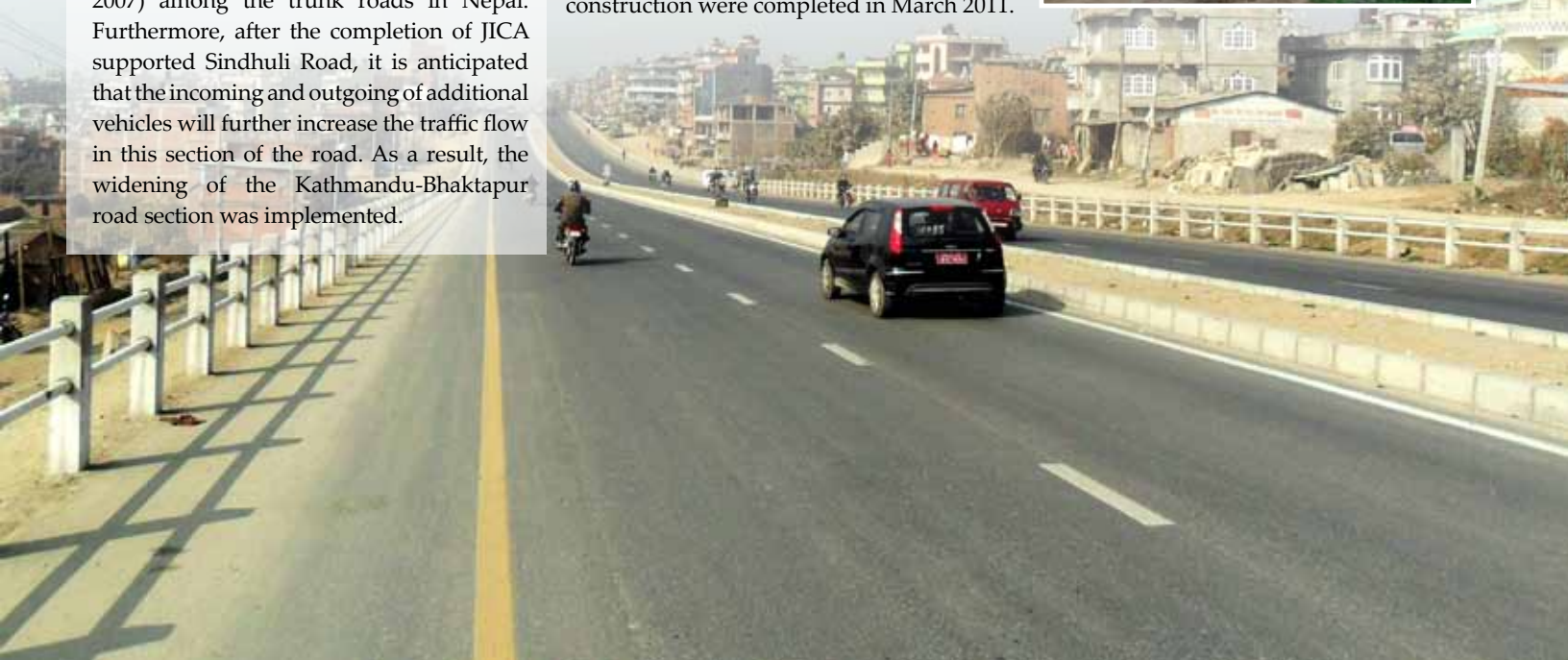
The contractor i.e. Hazama Corporation was mobilized on October 8, 2008 and the construction were completed in March 2011.

Main objectives:

- To enhance traffic capacity and reduce traffic congestion
- To enhance land use and activation of urban economy
- To improve public transportation system

Special Features:

- It is a high volume inter urban road in the Kathmandu Valley
- The urbanization of Kathmandu is rapidly increasing along this road corridor



Description & Main Features:

Scope	Improvement of road from Tinkune junction in Kathmandu to Suryabinayak junction in Bhaktapur
Length	9.142 Km.
Carriage width	2x3.5 m=7 meter x two directions = 14m
Design speed	80 Kmph
Pavement Type	Asphalt Concrete Pavement
Shoulder	3 M (including traffic barrier)
Bridge	Apart from existing new pc girder bridge at Manohara and Hanumante (width 12.5m)
Intersection Improvement	5 Intersections: Jadibuti, Gattaghar, Thimi, Sallaghari, Suryabinayak 3 Signalized: Jadibuti, Gattaghar, Sallaghari
Median Strip	3m wide median from Koteshwor to Suryabinayak 60cm wide New Jersey from Tinkune to Koteshwor
Access Road	11 access roads other than intersections
Bus Stop	14 locations
Road lighting	At intersections, bridge and bus stops
Cost of Project (Japanese side)	2586.3 million Japanese Yen (construction from Japanese side)
Cost of Project (Nepali side)	Relocation of utilities, cost against land and house relocation, service road construction

- It is a section of the Asian Highway that is expected to bear the future trade between India and China as well as future traffic from the Sindhuli Road
- Many small industries as well as educational institutions are along this road corridor
- Tourist attraction places such as Thimi and Bhaktapur are along the road and it also leads to Dhulikhel, Banepa, Nala, Panauti, ChanguNarayan, Nagarkot, etc.

works, etc. However, most of these challenges were tackled accordingly. For example, serious and sincere effort was made through repeated discussions with the local residents in order to curb traffic accidents by instilling site safety patrolling and coordination with the traffic and local police as well as through various traffic rules and safety awareness campaigns. Similarly, the dust pollution was controlled by continuous sprinkling of water, and likewise.

Challenges:

Running any urban projects especially roads entail various challenges. One of the first challenges when the project started was the relocation of utilities. This was not an easy task as Kathmandu is an old city and these utilities were first laid in an unplanned manner. Relocating them while still maintaining the continuation of services provided by these utilities to the locals was quite difficult. In addition to this, the relocation of trolley poles proved to be tricky as many parties and line agencies were involved. Various other daily challenges included managing the heavy traffic during construction phase in a smooth manner, traffic accidents resulting mainly due to poor traffic ethics and its violations, environmental issues such as dust pollution, damages to the utilities caused due to the construction

The Kathmandu-Bhaktapur road project



The construction of the road has been completed but with this completion comes another set of challenges as well as opportunities for the line agencies and stakeholders. Some of them are as follows:

- Maintenance of road with a paradigm shift from traditional way of maintenance
- New ways of traffic management
- New method of traffic enforcement
- Capacity building of the Road Safety stakeholders
- Road Safety campaign & measures
- Occupational health and safety

Way forward and Lessons learned from the Project

- It is necessary to look into the overall work of the entire project in totality. In addition, the work also needs to be broken down into many sections and responsibilities for an efficient and successful outcome.
- The Safety awareness programs for pre, during, and post construction stages, and post-construction stages need to be addressed during the planning stage itself.
- Stakeholders' analysis as well as rigorous discussion should be carried out more extensively, which in turn will help to reduce the project's issues and challenges in later stages.



First Nepali to Bag the Prestigious JSCE Award

The Japan Society of Civil Engineers (JSCE) International award is bestowed to an overseas civil engineer in recognition and appreciation of his/her professional services contributing to the advancement of Japanese civil engineering disciplines. The JSCE was established as an incorporated association in 1914. Bindu Shamsher Rana became the first Nepali to be honored with this prestigious JSCE International award for the fiscal year of 2010.



“May 27 of 2011 established a major milestone in my life when I received the Japan Society of Civil Engineers (JSCE) International Award-2010 at a special ceremony in Japan by the President of JSCE, Dr. Eng. Kenji Sakata. The award certificate states the recognition of my ‘sincere commitment and dedication in implementing the Banepa-Sindhuli-Bardibas Road Project (The Project for Construction of Sindhuli Road) in cooperation with JICA; significant achievement and contribution in the field of road and bridge management and disaster risk reduction in Nepal by adopting the Japanese civil engineering technology; and tireless effort to introduce that technology not only in Nepal but also in the neighboring countries.”

During my visit to receive the award in Japan, I got an excellent opportunity to

meet and discuss the present status and progress of **the Sindhuli Road Project** (see box) with high officials from JICA Headquarters, Ministry of Foreign Affairs, Japan and JSCE.

The JSCE International award is a prestigious award and a matter of great pride for any civil engineer. Furthermore, I am really proud to be the first Nepali national and the fifteenth non-native to receive this award since its inception in 1920. I truly feel honored and at the same time it encourages me to work even harder. I give my heartfelt thanks to JICA, Ministry of Foreign Affairs in Japan and all those who have extended their support to me. I would also like to thank JSCE for recognizing my contribution.

Thank you.”

- Bindu Shamsher Rana

Congratulations, Mr. Rana !

“Mr. Bindu Shamsher Rana from the Department of Roads, Ministry of Physical Planning and Works, has been working as the Project Manager of the Construction of Sindhuli Road, supported under the Japanese Grant Aid, since 1996. He has shown remarkable endurance and resourcefulness through monitoring and supervision of the construction, procurement maintenance, environmental and social consideration and above all, the smooth continuation and overall management even during the tough insurgency time including post-insurgency that created various challenges in the form of strikes, shortage of construction materials, etc. Mr. Rana successfully tackled various obstacles in a wise and timely manner. This project could not have progressed forward without his notable efforts. It gives us great pleasure to extend our congratulations to him.”

- JICA Nepal Office



Project for the construction of Sindhuli Road (Grant Aid Project)



Sindhuli road is planned as a new alternate route, which connects the capital city Kathmandu to Terai. Its feasibility study was completed in 1988 by JICA.

Total length (158km) from Bardibas to Dhulikhel was divided into 4 sections:

Section1: Bardibas-Sindhuli Bazaar (37km)

Section2: Sindhuli Bazaar-Khurkot (39km)

Section3: Khurkot-Nepalthok (32km)

Section4: Nepalthok-Dhulikhel (50km)

The construction work first started on section 1 in 1996. The construction work has been completed in section 1, 2 and 4 while Section 3 is under construction. Japanese and Nepali engineers are making great efforts to accomplish this project as it is challenging to build a road in the difficult geographical terrains of Nepal. Designed to be environmental friendly, this road is anticipated to be not just a new road but also a road corridor that will encourage socio-economic development and connect people to people.

Partners/Counterparts: Department of Roads, Ministry of Physical Planning & Works

Period: 1996 - under construction

Area: Bardibas - Dhulikhel

The Launch of Media for Peace (MeP) Project

Promoting Peace Building and Democratization



Prime Minister, MoIC; Mr. Narayan Prasad Regmi, Joint Secretary, MoIC; Mr. Tapanath Shukla, Executive Director of Radio Nepal followed by closing remarks from Mr. Sushil Ghimire, Secretary, MoIC. Mr. Mitsuyoshi Kawasaki, the Chief Representative of JICA Nepal Office, remarked that Nepal will soon have a new constitution and media people will have to play a crucial role in disseminating

Project and transformation of Radio Nepal into Public Broadcasting Institution and also discussed the existing practices of NHK.

The second session comprised of paper presentations, 'New Media Policies: Challenges and Options' by Mr. Gokul Pokhrel that highlighted the major steps in the development of regulatory regime of media sector in Nepal from 1901 B.S. to date. Similarly, Mr Taranath Dahal presented 'Enhancement and Strengthening of Radio Nepal to transform into PSB', which focused on the current state of Radio Nepal. These presentations were each followed by an open floor comments and question & answer rounds. Mr. Take Toru, the Senior Representative of JICA Nepal Office concluded the program by hoping that Radio Nepal, which enjoys its wider converge network and its long history will be established as a model radio station for many others. He further added that revising media policy is not an easy task because of its diversity in coverage and involvement of various stakeholders but that is the need of the people and JICA is happy to support in this endeavor.

JICA Nepal supports the Government of Nepal in the field of Peacebuilding and Democratization by providing technical cooperation to media with an aim to support free and fair media as well as capacity development of journalists. As part of this support, JICA Nepal Office has launched a new project titled "The Project for Promoting Peace Building and Democratization through the Capacity Development of the Media Sector in Nepal" or simply Media for Peace (MeP) Project. The project is implemented by the Ministry of Information & Communications (MoIC) and Radio Nepal (RN). The main purpose of the project is to establish a model of accurate, impartial and fair media in the democratization process of Nepal through the revision of media policy, acts, regulations and guidelines and also enhance the function of Radio Nepal as public broadcasting institution. This was the underlying theme governing the launch event of the MeP Project held on April 20, 2011.

right information to the general public for better understanding of the constitution. He added that JICA will remain fully committed to support the people of Nepal in this issue. Mr. Hari Govinda Luitel, the keynote speaker said that it is appropriate to initiate reform measures and development programs in the communications entities like Radio Nepal and raised key elements of the ideal new communication policy such as guarantee to freedom of expression, priority to democratic values and norms, balance in relevancy and popularity, professional competitiveness in the management, media ethics, special initiatives towards inclusiveness, etc. The team leader of MeP, Mr. Naoaki Nambu through his presentation talked about the media guidelines of the MeP



The launch event of MeP Project

The launch event was divided into two sessions. The morning session focused on the commencing process of the MeP project and the afternoon session on paper presentations followed by comments and Q&A rounds for the revision and regulation of media policy and transformation of Radio Nepal into Public Service Broadcasting (PSB). The morning session comprised of informational speeches by the Chief Guest, Mr. Krishna Bahadur Mahara, Deputy



Enhancing Livelihood along the Sindhuli Road Corridor through Agricultural development



Since 1996, the Government of Japan (GoJ) has been supporting the construction of the 160 km Sindhuli Road, which is scheduled to be completed in 2014. In addition to this, the improvement of the associated road networks through Community Access Improvements Project also funded by the GoJ is currently in operation and will be completed by the end of 2012. Residents along the Sindhuli Road as well as that of the associated road networks expect this development to bring about positive impacts to the area.

The Government of Nepal (GoN) and The Government of Japan (GoJ) had discussed on how to ensure the benefits from these road developments to reach to the local residents along the Sindhuli Road Corridor (SRC) and how their livelihoods can be improved through utilizing this opportunity. Finally, the Ministry of Agriculture and Cooperatives (MoAC), GoN and JICA reached an agreement on carrying out 'the Project for the Master Plan Study on High Value Agriculture Extension and Promotion in SRC', in 2010.

On June 15 2011, the first Steering Committee Meeting, which marked the official launch of the Study, was held under the chairmanship of the Secretary of MoAC. The short title of the study was also decided as SRCAMP meaning Sindhuli Road Corridor Agricultural Master Plan.

The SRCAMP is the three-year project aiming at the formulation of a master plan until 2020, to promote the High Value Agriculture (HVA) in the SRC area, with target districts of Kavre, Dolakha, Ramechhap and Sindhuli, as shown in the map. The Study will be carried out through three phases, i.e. Phase 1 for the analyses of current and future situations with regard to the potential HVA products and to develop the draft basic development strategy for SRC area, Phase 2 for the verification of the draft basic development strategy through carrying out the pilot projects, and Phase 3 for the adjustment of the strategy by reflecting the lessons learned from pilots and the formulation of the master plan. The study team consists of six Japanese experts who will jointly work with Nepali counterparts from MoAC throughout the study period, which is expected to be completed by March 2014.



SRC area map



Lessons to be learned from the Great East Japan Earthquake

Taizo Nakatani was in his office when the *Great East Japan Earthquake* hit his home country on March 11, 2011. What he did next was the result of years of experience and emergency drills. He immediately activated the operations center and coordinated the comprehensive response efforts of his department, done with natural ease sans panic.

Soon after, Nakatani arrived in Nepal to serve as a Senior Volunteer and was assigned in the Earthquake Risk Management at Urban and Community Based Disaster Risk Management Unit of National Society for Earthquake Technology-Nepal (NSET). In Japan, Nakatani had served as a disaster management coordinator in the department of Transportation and Infrastructure, Shizuoka Prefectural Government. He had also been engaged in the research and study on both Japanese and American emergency management systems. Here, he shares with us his experiences and recommendations:

Current Work and Objectives at NSET:

The mission of NSET is to assist all communities in Nepal by developing and implementing organized approaches to managing and minimizing earthquake risks. The vision of NSET is 'Earthquake Safe Communities in Nepal by 2020.' One of the major programs of NSET is to make grass roots communities, schools and hospitals earthquake safer.

I was requested by the NSET to introduce and share the knowledge and expertise

that I have acquired in Japan about the earthquake risk reduction. Currently, I am actively involved in the earthquake preparedness lessons for the people around the local area as a member of the NSET and briefing knowledge on how to reduce earthquake damages based on our experiences in Japan. Furthermore, I am studying documents about the present status of initiatives in the earthquake risk reduction in Nepal and hope that this will help me effectively perform the activities here. If it is possible, I would also like to extend my activities to local government fields because I have a lot of experience of disaster management in Shizuoka Prefectural Government, Japan. Good disaster risk management at the local government level could improve the one at the community level. Therefore, both levels are significantly related. It is good that the earthquake management programs of NSET have significant work to do with Municipalities of Nepal.

The 'imminent' Mega-Earthquake and its Impact in Nepal:

In 1934, a major earthquake occurred in Nepal that caused a lot of devastating damages. It has already been 78 years and the next major earthquake can strike anytime in Nepal. The magnitude might be expected to be 8 or even higher. In Nepal, earthquakes of magnitude from 7.5 to 8 have occurred about every forty years. Also, the greater ones have occurred about every 80 years. I must say the mega-quake is kind of 'imminent' in Nepal. The number of 'deaths' estimated by NSET may be around 40,000; 'injuries' may be around 95,000 and

'buildings destroyed or collapsed' around 60 percent. This data dates back to 1998. By now, they say that the deaths and injuries may be 2.5 times more than estimated as in 1998. Talking about high-risk places, crowded urban areas and landslide areas are typically vulnerable. According to the JICA Report in 2002, Kathmandu may be unable to function as the Capital city. The density, land use and structure of the buildings are main factors of physical vulnerability. There are compulsory building codes but according to the report of the Nepal Risk Reduction Consortium, implementation process of the building codes is not that effective and there is lack of enforcement. Also, the disaster management system in Nepal is in the process of formulation. The general public does not have enough awareness or knowledge of the importance of preparedness or mitigation. Thus, Nepal needs to make an extra effort to improve the present situation of earthquake disaster preparedness.

Earthquake Disaster Preparedness in Nepal:

Earthquake preparedness starts from an individual. People tend to think that it is the sole responsibility of Government but one has to remember that it is the combined responsibilities of all entities including civil societies, local communities and individuals to brace up for all kinds of mitigation, preparedness, response and recovery efforts. It will take time for governmental or outside help for any rescue efforts. Therefore, individual and community's actions for an earthquake are very important. One should be pre-prepared for such situations. This is recommended in Japan as well.



Crowded urban areas are vulnerable to earthquakes in the Kathmandu valley

Individual Preparedness: Let us start by focusing on our residential house. If our houses are non-earthquake resistant, our families are under highly dangerous situation. If we have not fixed the furniture to the house, it could also cause serious damages. When earthquake strikes, remember to 'Duck, Cover and Hold!' Second, turn off the fire and electricity. Then, evacuate to a pre-identified safe open space. These are the basic actions we should take when earthquake occurs. Also, family members should know and learn about the course of actions when earthquake strikes. Some of the other safety measures to keep in mind are one should always keep several evacuation routes, store emergency food, water and supplies for at least three days as well as the required emergency materials. Preferably, the entrance door should open both sides, if not, then at least towards outside. Also, it is good to keep distance between windows and beds, sofas, desks etc. especially if the windows' glasses are not laminated. For detailed information, I would like to recommend visiting the NSET website: www.nset.org.np.

Public Awareness:

Well-planned and repeated campaigns and lessons in communities are the typical way to educate the general public. The targeted strategies for communities, schools and hospitals are also effective. Therefore, NSET has made a lot of efforts in these fields. National events like 'National Earthquake Safety Day' could be effective as well to re-emphasize the importance of being prepared for disasters. For a wider coverage of the awareness, mass media like TV, FM, video and daily newspapers could be used as well including this newsletter. Also, drills are important methods of preparing everyone, which give firsthand experience on how to respond when such disasters occur.

Japan is a land of natural disasters. Every year, we have casualties and destructions especially during rainy seasons. Our department emergency operations center is activated almost every three days during this time. Emergency drills are not new to us in Japan. We respond naturally and automatically to these drills, as it has become part of our lives. If we conduct periodic drills, the real earthquake will actually feel like just another drill. Frankly speaking, we are not fond of these drills especially the unannounced ones but it is mandatory and we understand its value. This is the very reason we are so well prepared for any actual disasters. Compared

to Japan, Nepal does not have a lot of disasters but Nepal needs to be prepared and have proper plans. Preparedness and Mitigation are both very important for the countermeasures to work successfully. It is very important that all levels of the Nepali society should take effective and efficient steps in preparing for the unavoidable disasters. Please visit the NSET website and educate yourself on steps of being prepared.

Efforts from the Government:

The Government of Nepal (GoN) is well aware of the effects of such natural disasters. Nepal needs to have comprehensive disaster management systems covering all concerned entities at various levels of the Nepali society including government bodies, public corporations, communities, individuals, schools, medical institutes, academic societies, business, etc. The GoN is now going under the process of establishing these systems in closer cooperation with many national and international stakeholders. I found that NSET has committed for coordination among the major stakeholders in Nepal. Master emergency plans of the concerned authorities should be part of these comprehensive national systems and cover all stages of pre, during and post-disaster periods. Under these master plans, there should be more specific and concrete action plans to reduce the risks.

There are already good scientific studies as well as a lot of disaster management knowledge and expertise in both national and international institutions. What is most important is we should use them efficiently and effectively. To know is one thing and to do is another.

Lessons to be learned from the Great East Japan Earthquake:

The Great East Japan Earthquake was a historical mega-quake of 9.0 magnitude, which disastrously affected very wide areas in Japan. But one has to note the fact that less than seven percent of deaths were caused by the earthquake itself. Ninety three percent of the deaths were actually caused by Tsunami. That means the countermeasures for earthquakes efficiently worked although the countermeasures for Tsunami did not. What we need to learn from this is we can significantly minimize the earthquake damages in Nepal by seriously undertaking appropriate measures and actions of the preparedness and mitigation because we will never have Tsunami in Nepal. This is what I would really like to emphasize.



1934 earthquake in Nepal



Nakatani in front of NSET building

Thank you:

JICA Nepal Office would like to sincerely thank you all for your kind and heartfelt letters of condolence. We greatly appreciate all the expression of concerns we have received. Your prayers and faith on the people of Japan have given us tremendous hope and encouragement during this difficult time.

JICA trainings offered to government officials from April to June 2011

Course	Center	Duration	No. of Participant
Strengthening Management and Business Activities of Agricultural Cooperatives	TBIC (JICA TSUKUBA)	8 May -16 July 2011	1
Engineering on Water Supply Systems	TIC (JICA Tokyo)	8 May-25 July 2011	1
Seminar on Government Audit for Senior Officials	TIC (JICA Tokyo)	30 May-9 June 2011	1
Local Governance	TIC (JICA Tokyo)	31 May-16 July 2011	1
Participatory Irrigation Management System for Paddies for Asian Countries(A)	SIC (JICA Sapporo)	31 May-22 July 2011	1
Promotion of Hydropower Development	TIC (JICA Tokyo)	7 June-7 July 2011	2
Community Capacity and Rural Development Promotion for Asia Countries -One Village One Product-(A)	KIC (JICA Kyushu)	12 Jun-2July 2011	2
Gender Mainstreaming Policies for Government Officers	KIC (JICA Kyushu)	12 June-23 July 2011	3
Workshop on Administration of Environmental and Social Consideration Process for Implementation of a Japanese ODA Loan Project(A)	TIC (JICA Tokyo)	19 June- 2 July 2011	2

Tokyo International Center (TIC) | Tsukuba International Center (TBIC) | Sapporo International Center (SIC) | Kyushi International Center (KIC)

Incoming Experts during the quarter of April to June 2011

Post/ Title	Project
Expert	COMCAP
Expert	Media for Peace (MeP) Project
Expert	Media for Peace (MeP) Project
Expert	Media for Peace (MeP) Project

Incoming Senior Volunteers (SVs) during the quarter of April to June 2011

Field	Assigned Office	Total No.
Management Advisor	Council for Technical Education and Vocational Training (CTEVT), Bhaktapur	1
Industry Information Management System	Federation of Nepal Cottage & Small Industries (NGO), Kathmandu	1
Protected Vegetable Production	Central Vegetable Seed Production Center, Lalitpur	1
Pharmaceutical Lecturer	School of Pharmaceutical and Bio-medical Sciences, Pokhara University, Kaski	1
Japanese Language, Culture and Moral Education	JAAN Information Language and Culture Institute (NGO), Kathmandu	1

Incoming Japan Overseas Cooperation Volunteers (JOCVs) during the quarter of April to June 2011

Field	Assigned Office	Total No.
Early Child Education	Mangolday Higher Secondary School, Kathmandu	1
Primary School	Adarsha Higher Secondary School (Gajuri Resource Center), Dhadhing;	2
	Satyawati Higher Secondary School (Adamtar Resource Center), Dhadhing	
PC instructor	Dhaulagiri Deaf Primary School, Baglung	1
Community Development	District Development Committee, Parbat	1
Midwife	Panchamel Primary Health Center, Syangja;	2
	Syangja District Hospital	
Nutrition	District Health Office, Dhadhing	1