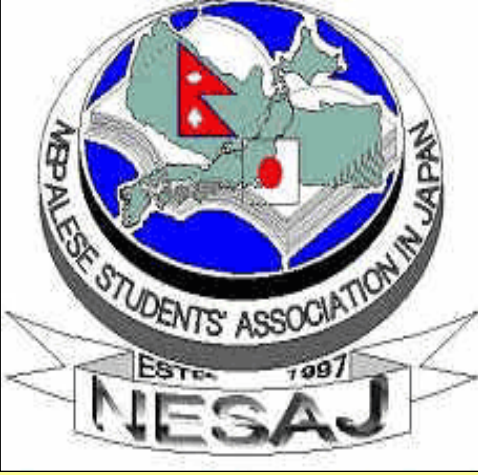


Volume 7, Issue 1

2010 March

Nesaj Patra



Nepal Student Association Japan

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Message from the editorial Board

We are very glad that at last we are able to publish this year's "NESAJ PATRA"- 2010 despite of several technical and practical problems. Although we started the process of collecting the articles very early, we were able to get very few untill the end of February 2010. We thought it was almost impossible to publish this year's issue. Later we thought continuation is better than waiting for the numbers of articles, so we again circulated the call email in March, follow up and personal contact made it possible. This issue consists of highlights of the NESAJ activities, scientific articles, short essays and poems in Nepali and English languages. NESAJ PATRA Editorial appreciates your contributions in this effort. Comments and suggestions are always valuable for us that help us to look in to the point where improvements are necessary. We hope comments and suggestions from reader to shape NESAJ PATRA to be better than this in future. We would like to request the readers to bear with the grammatical and typological errors, if any.

Message from President

Rajendra PARAJULI



First of all I would like to thank and congratulate NESAJ-PATRA Editorial Board for creating this issue of NESAJPATRA.

Despite limited article and contribution this year, we are pleased to report that, with the incredible cooperation and hard work of NESAJ-PATRA editorial board and support from other colleagues, NESAJPATRA this year has come out with a variety of articles.

I am very happy to have had the opportunity to serve this great organization, NESAJ. From the time of its establishment, NESAJ has always played a great role in linking and integrating all Nepalese Students, dispersed throughout Japan in term of cultural and academic activities. During the years after its establishment, NESAJ has been able to increase quality of its activities with some new activities, benefiting Nepalese students in Japan and in Nepal. This organisation with dynamic leadership has always taken initiative in planning and executing projects with special emphasis on academic and social activities. This activity made NESAJ an international organization which is taking some bold new steps, exploring new horizons in this competitive environment. Some examples include supporting an impoverished school in Nepal, organizing a Knowledge Transfer Symposium (every year), holding the panel discussion during NESAJ Day celebration to have suggestion from the presidents of different organisation and intellectuals. Such activities time and again have made NESAJ one of the most recognized and well-respected Nepalese entities in Japan and beyond.

In context of organisation with narrow interest of ethnic group or region, NESAJ could show its wider scope with national interest and could conduct its programme in different region for regional representation. We have our own webpage (<http://www.nesaj.org>) and we are constantly updating information about activities which would be interesting primarily for Students, but also for the wider Nepalese community residing in Japan. In addition, we are discussing in Face Book forum using new technology for networking among NESAJ members to promote our activities (NESAJ Knowledge transfer Symposium and NESAJ Day 2010). Using this platform, Nepalese people can gather together to share their knowledge and exchange information for mutual benefit, cooperating to achieve a common purpose, i.e. to transfer the knowledge that we have gained here for the development of Nepal.

Using this platform, once again I would like to thank all the donors and volunteers for their cooperation and active participation in NESAJ activities. I hope in coming days, because of ongoing globalization strategies of Japanese Universities, more Nepalese students will come to Japan and will join NESAJ so that we can play a vital role in developing Nepal.

Finally, I wish good luck to the incoming Executive Committee of NESAJ and hope they will continue to play an active role in the development of warm relations between Japan and Nepal.

Activities of NESAJ

1) **Organized HANAMI and celebrated Nepali New Year in different parts of Japan:** Hanami is a Japanese tradition and also a yearly activity of Nesaj. It is also a good opportunity to welcome new students. Celebrating Nepali New Year is showing our culture to Japanese and also to socialize among ourselves. This year also, Nesaj selected different organizing committee in different parts of Japan and organize HANAMI and Nepali New Year.

2) **Donation of one year salary to Primary School teacher in Nepal:** Nesaj 11th Executive committee donated funds for a primary school in Fewatar in Chitwan based on application received from school and decision taken by executive committee after evaluating significance and the real need.

3) **Nesaj Day Celebration:** The 11th Executive Committee selected an organizing committee to make arrangements to organize Nesaj Day celebration in Tokyo. The program was very successful with the presence of large number of friends and good wisher and delightful talk from Hon. Minister for Tourism and civil aviation, His Excellency ambassador and presidents or representatives of various organization actively working in Tokyo at 14th March 2010 in Everest hall of Togoshi Koen.

4) **Appointment of Regional Coordinators and University Representatives:** With the aim to assemble and assist the dispersed Nepalese students in Japan under one single umbrella of Nesaj, and also to collect data about Nepali students we appointed Regional Coordinators and University representatives in different regions and Universities.

5) **Organized Vijaya Dashami and Deepawali celebrations in different parts of Japan.** With the cooperation of local residents, giving continuity to our great tradition Nesaj organized programs to celebrate Vijaya Dashami and Deepawali in different parts of Japan.

6) **Nesaj Symposium on Knowledge Transfer:** The 11th Executive Committee selected an organizing committee to make arrangements to organize Nesaj Symposium on Knowledge Transfer in Nagoya with the slogan “**For prosperous, peaceful and developed Nepal**” The program was very successful with the presence of large number of friends and good wisher and delightful talk from Professor KINHADA and 7 presentation at 21st Feb 2010 in Nagoya international centre.

7) **We have provided NESAJ recognition for graduated student as a pilot project**, it was appreciated from many friends, so next Ex Com will elaborate it.

8) **Essay competition**: Although we have constructed separate committee for the Judge for essay competition, and made deferent call from group mail, we did get enough essays to fulfill our minimum need. So, our goal for Essay competition became impossible.

9) **Nesaj home page has been updated frequently**. From this we had added photo of executive committee, all members (Alumni, Regular, Friends, Affiliated, New members) with the detail (Name, ID, University and if they want to update, they can send email to NESAJ Membership update committee by just clicking on their name to with their latest information) and update all activities and news of Nesaj on the home page.

10) **25 new students were added in to the Nesaj Family**. We hope in near future more students will join Nesaj. Five alumni members status was updated as regular.

11) **NESAJ conducted interaction programme with Prof. Dr. Surya Subedi** regarding Federalism in Nepal.

12) **NESAJ has handover memorandum of student's difficulties and problems** (like License, tax) to His Excellency Ambassador Dr. Ganesh Yonjan Tamang.

13) **Face book account of NESAJ was opened and organized**. Now the members on this account reach 54. The important events were released from face book with other informal discussion.

Butterfly wing color patterns study

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Butterfly wing color patterns are model for development and evolution study. The color patterns study is not the actual wing color study but the study of patterns of the colors in the wings. If we carefully observe the right and left wings of a butterfly they are identical. The hindwing is identical to hindwing and forewing is identical to forewing. If we compare the ventral side of the wing the color pattern is also identical in both right and left sides. Also the important fact is that the two individuals of same species are also identical in wing color patterns with negligible differences. The wing color pattern is not just random pattern but is conserved in a species and many species can be differentiated based on wing color pattern. H. Frederik Nijhout, a Duke University biologist proposed a ground plan comparing morphological color pattern analysis of butterflies is known as nymphalid groundplan. The entire naturally occurring butterfly wing color pattern can be explained with this ground plan at least in Nymphalidae (family of about 5000 species of butterflies).

The wing development starts from larva stage. The maturation occurs at pupa stage and final colorful wing is seen at adult stage. The genes making the butterfly wing color pattern are expressed in late larva and early pupa stage. The genes like *distal-less*, *envicta*, *salt*, *wingless*, *scalloped*, *decapentagonic* and *apterous* are the few genes that make the butterfly wing color patterns. These are the same genes that also make the

wings of *Drosophila* fruit fly but the final wings of the *Drosophila* fruit fly are colorless. The same gene has been recruited in making beautiful colorful wings in butterflies. The Carrolls group from Wisconsin and Madison, had shown the expression of above mentioned genes at pupa stage with the help of protein in situ hybridization technology (finding the protein with the antibody).

One of the very important elements of butterfly wing color pattern is eyespots. Eyespots are concentric rings of colored scales found in butterfly wings. Most of the butterflies have eyespots like *Junonia coenia*, *Bicyclus anynana* and *Junonia orithya*. The function is not yet completely known but many researchers believe that they help in predation avoidance and also in mating. The eyespot is most diverse in butterflies and found in many shapes and sizes. This particular element has evolved very much in case of butterfly wing so this is perfect element for evolution study. Carrolls groups showed that the expression of an important gene *distal-less* is responsible for making eyespots. The result is based on in situ hybridization technique but till now there is no functional evidence. We in our Cell and Functional Biology laboratory in Ryukyu University are trying to find out the functional evidence of *distal-less* gene using butterfly.

We chose butterfly *Junonia orithya*. This is abundantly found in Okinawa and Ishigaki island of Japan and this species has two eyespots in its hind wing, major and minor eyespots. This species also shows sexual as well as seasonal polymorphism. The main reason behind to choose this species is that many works has already been done in its American version *Junonia coenia*. In our lab we are trying to develop a method to study function of the genes. We are trying to develop a gene transfer method in butterfly. We have devised a method to put DNA between the wings of butterfly at pupa stage. The

plasmid DNA can be used for co-expression of our gene of interest and marker gene. For the study, we need to cloned series of genes involved in butterfly wing color patterns such as *distal-less* from mRNA pool of *Junonia orithya*. We are using *GFP* as marker gene. The expression of marker gene and ectopic expression of the eyespot in the same region will be the proof of the *distal-less* gene in the eyespot development. Similarly, the function of the other genes in wing color pattern can be studied once the method of gene transfer is established in butterfly *Junonia orithya*.

An Econometric Analysis of Energy Consumption in South Asia

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Abstract

This paper uses an autoregressive distributive lag model (ADRL) to estimate the long-run and short-run price and income elasticities of final energy consumption and energy forecast in South Asian countries (Bangladesh, India, Nepal, Pakistan and Sri Lanka) over the period of 36 years (1971-2006). Result shows that the per capita GDP elasticity is statistically significant for all fuel types except coal consumption, and in every sector and is elastic but own price elasticity is inelastic and statistical insignificant in most of the fuel types, whereas cross price elasticity is elastic. The forecasted value shows that the regional total final energy consumption will grow 482.6 mtoe in 2006 to 1060.6 mtoe in 2030 at an annual growth rate of 3.2 percent. At the same time, regional CO₂ emission will be 3.6 billion tons in 2030 at an annual growth rate of 4.8 percent and 3.3 times of the 2006 level. Regional energy networks (grid, gas and petroleum pipeline) will bring substantial benefits in terms of environmental protection, through reduced consumption of fuel wood and low quality coal with optimal utilization of regional energy resources. For example, India can reduce almost 4 percent of CO₂ emission if Nepal can export 15,000MW hydro-electricity by 2030 (NWRS, 2000 proposed to export 15,000 MW electricity by producing 22,000MW by 2027) whereas, Nepal can get 6 percent of GDP export earnings with huge infrastructure investment benefits.

Keywords: Elasticities, ARDL model, CO₂ emission, Energy forecast, Energy networks.

1. Introduction

Economic and population growth in South Asia have resulted in rapid increases of energy consumption in recent years, well above rates seen in the OECD. In 2006, South Asia accounted for approximately 4.0 percent of world total primary energy demand, up from 2.5 percent in 1990. Despite this growth in energy demand, however, South Asia continues to average among the lowest levels of per capita energy consumption in the world, but among the highest levels of energy consumption per unit of GDP. South Asia's energy mix in 2006 was 33 percent coal, 24 percent petroleum, 9.9 percent natural gas, 1.9 percent hydroelectricity, 0.79 percent nuclear and 30.4 biomass (which includes animal waste, wood, biogas and other). There are significant variations of primary energy mix within the region. Individual country's primary commercial energy mix shows that the Bangladesh's energy mix, for example, is dominated by natural gas (70.3 percent), India relies heavily on coal (54.9 percent) and petroleum (33.5 percent in 2006). Pakistan depends on petroleum (36.7 percent) and gas (48.5 percent) where as Sri Lanka heavily depends on petroleum (89.1 percent) and hydro (9.3 percent) according to 2006 figures. The Himalayan country Nepal depends upon imported petroleum at about 62.4 percent and 17.7 percent on hydro. South Asian countries are facing rapidly rising energy demand coupled with increasingly insufficient energy supplies. Another implication of rising energy demand in South Asia is its impact on the region's level of carbon dioxide emissions. As of 2006, South Asia accounted for 3.9 percent of global carbon dioxide emissions (IEO2008).

2. Objectives

This research has the following objectives:

- To estimate energy demand and forecast energy consumption up to 2030
- To calculate CO₂ emissions caused by the burning of fossil fuel.
- To find out the cross-broader energy interconnection benefit in South Asia.

3. Methodology

In this study a pooled cross-section time-series data consisting of a group of five countries over the period of 36 years (1971-2006) are used. The autoregressive distributed lag (ADRL) model (partial adjustment approach) suggested by Pesaran et al. (1998) is used to analyze the energy demand.

$$y_{it} = \alpha' + \lambda_i y_{it-1} + \beta' x_{it} + \varepsilon'_{it} \dots\dots(5)$$

Where, y_{it} and y_{it-1} are the current and lag value of the dependent variable (fuel types or sectoral energy demand in this study), λ_i reflects the speed of adjustment between the actual and desired level of energy demands x_{it} , set of independent variables, $\alpha' = \alpha(1 - \lambda)$, $\beta' = \beta(1 - \lambda)$ and $\varepsilon' = (1 - \lambda)\varepsilon$ are the parameters, subscript i , $i = 1, 2, \dots, 5$ stands for the country and for t , $t = 1, 2, \dots, T$ is the time. With the belief that systematic variation occurs across the individual countries but not across time, the error term ε'_{it} is assumed to have a structure of a one-way error component in the following way $\varepsilon'_{it} = \mu_i + \eta_{it}$

Where μ_i denotes the unobservable individual country specific effect and η_{it} denotes the remainder disturbance (genuine error term).

4. Discussion

The estimated results show that the per capita GDP is highly sensitive and main driving force for energy consumption both in sectoral and fuel models. The long

term per capita GDP elasticity is less than one in every fuel models and ranges from -0.2 (biomass consumption) to 0.9 (electricity consumption). Similarly, for sectoral model, it ranges from 0.2 in residential sector to 1.2 in agricultural sector. As the South Asian countries have heavily subsidized the energy prices and is controlled by the government, the energy prices did not show true response in most of the models and have opposite signs in some models.

The energy forecast based on ARDL (1, 0) models show that the regional energy consumption will increase 2.2 times that of 2006 level in 2030 with the highest increment in coal (3.3 times) and the lowest in biomass (0.2 times) consumption. On the sectoral energy consumption model, the projection figures show that transportation sector energy consumption will increase by 3.0 times and residential sector by 0.5 times. At the same time, regional CO₂ emission will increase (2.3 times) from 1095 million tons to 35.86.4 million tons if low carbon technology and structural brakes will not take place. Power sector and India will be the leader for emission (both will increase 2.3 that of 2006 level in 2030) both in volume and growth rate.

5. Novelty

This study presents the comprehensive econometric analyses of final energy consumption in South Asian countries using a consistent and comparable data set. Understanding and forecasting South Asian energy demand is important to both national and regional decision makers in the line of energy security and stabilization of environmental problems created by the burning of fossil fuels. There are some researches on individual countries as well as groups of countries (panel) for energy demand analyses. These especially focus on energy intensities

and elasticities. This study adds more on energy forecasts, energy integration and emission calculation with new data set and country grouping in South Asia.

6. Conclusion

The energy networks and mutual trade will reduce the cost of energy import, infrastructure investment and revenue benefits (especially Nepal) and energy security (especially India) in the long term. In addition to this, the regional CO₂ emission will reduce sharply. For example, India can reduce around 4 percent of CO₂ emissions (120.7 million tons) if Nepal is able to export 15,000MW hydro power by 2030. By creating conducive environment for investment in hydro power and development of energy interconnection network make every country win and win benefits.

References

- Aldy, J.E. (2006). "Per capita carbon dioxide emission: Convergence or Divergence?" *Environmental & resource Economics* 33: 533-555.
- Arellano, M. and S. Bond (1991). "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations," *Review- of Economic Studies* 58: 277-297.
- Asche, F., O. B. Nilsen, and R. Tveteras (2008). "Natural Gas Demand in the European Household Sector". *The Energy Journal* 29 (3): 27-46.
- ADB (1994). *Energy Indicators of Developing Member Countries of ADB*. Asian Development Bank, Manila, Philippines.
- Baltagi, B, H, and J. M. Griffin (1997). "Pooled estimators' vs. their heterogeneous counterparts in the context of dynamic demand for gasoline." *Journal of Econometrics* 77: 303-327.
- Barker, T., P. Ekins and N. Johnstone (1995). *Global Warming and Energy Demand*. Routledge.
- Bowen, B. H., F.T. Sparrow and Z. Yu (1999). "Modeling electricity trade policy for the twelve nations of the Southern African power pool (SAPP)." *Utilities Policy* 8(3): 183-197.
- Brian H. Bowen, F.T. Sparrow, Z. Yu and G. Granum (2003). "Benefits to South Asia from an Integrated Electricity Market Infrastructure". Institute for Interdisciplinary Engineering Studies, Purdue University West Lafayette, IN 47907-1293, U.S.A
- Brock, W.A. and M.S. Taylor (2005). *Economic Growth and the Environment: A Review of Theory and Empirics*. In: Aghion, P. and S. Durlauf (Eds.) *Handbook of Economic Growth*. North-Holland, Amsterdam.
- Dahl, C. (2008) "A survey of oil demand elasticities for developing countries" *OPEC Review* 17(4): 399-420.
- Dhungal, D.N. (2008). *Energy Reforms and Cross-border Cooperation between Nepal and India: A Professional prospective*. IIDS, Nepal.

- Energy Information Administration (2008). International Energy Outlook 2008. Washington, DC, Energy Information Administration.
- Gallop G., A. Hammond, P. Raskin and R. Swart (1997). Branch Points: Global Scenarios and Human Choice. Stockholm Environment Institute and Global Scenario Group, SEI Pole Star Series Report n. 7. Sweden.
- Garcia-Cerrutti, L.M. (2000). "Estimating elasticities of residential energy demand from panel country data using dynamic random variables models with heteroskedastic and correlated error terms." *Resource and Energy Economics* 22: 355-366.
- Gatley, D. and S. Streifel (1996). Oil Product Demand in developing Countries. World Bank, Unpublished paper.
- Gilbert E. Metcalf (2008). "An Empirical Analysis of Energy Intensity and Its Determinants at the State Level." *The Energy Journal* 29(3): 1-26.
- Green, W.H. (2008). *Econometric Analysis*. Pearson Education Ltd. (6th edition). New York.
- Griffin, J.M. (1979). *Energy Conservation in the OECD: 1980-2000*. Ballinger, Cambridge, Massachusetts.
- Grossmann, G.M. and A.B. Krueger (1993). Environmental Impacts of a North American Free Trade Agreement. In Garber, P. (Ed.) *The Mexico-US Free Trade Agreement*, 13-56, MIT Press, Cambridge.
- Grossmann, G.M. and A.B. Krueger (1995). "Economic Growth and the Environment." *Quarterly Journal of Economics* 110: 353-377.
- Hall, V.B. (1986). "Major OECD country industrial sector inter-fuel substitution estimates, 1960-79". *Energy Economics* 8 (2): 74-89.
- Hawdon, D. (ed.) (1992). *Energy Demand: Evidence and Expectations*. Surry University press, in association with Academic Press: London.
- Holtz-Eakin, D. and T.M. Selden (1995). "Stoking the fires? CO2 emissions and economic growth." *Journal of Public Economics* 57(1): 85-101.
- Huntington, H.G. (2007). "Industrial natural gas consumption in the United States: An empirical model for evaluating future trends." *Energy economics* 29: 743-759.
- IEA (2003). *Energy to 2050: Scenarios for a Sustainable Future*. International Energy Agency, OECD, Paris.
- IEA (2007). *CO2 emission from fuel combustion, 2007 Edition*. International Energy Agency, OECD, Paris.
- IEA (2008). *World Energy Outlook, 2008 Edition*. International Energy Agency OECD, Paris.
- Iqbal, M. (1986). "Substitution of Labor, Capital and Energy in Manufacturing Sector of Pakistan", *Empirical Economics* 11(2):81-95.
- IIDS (2000). *Regional energy grid in the GBM Region*. Institute for Integrated Development Studies, Kathmandu.
- Intergovernmental Panel on Climate Change-WGIII (2000). *Special Report on Emission Scenarios*. Cambridge U. Press.
- IPCC (2001). *Climate Change 2000 Synthesis Report-Third Assessment Report*. Cambridge University Press.
- IPCC (2007). *Climate Change 2007: Fourth Assessment report*. Intergovernmental Panel on Climate Change (IPCC), Geneva. Available at www.ipcc.ch
- Kuznets, S. (1955). "Economic Growth and Income Inequality." *American Economic Review* 45: 1-28.

- Keppler, J.H. Bourbnais and J. Girod (eds.) with an Introduction by Jean-Marie Chevalier (2007). *The Econometrics of Energy Systems*. Palgrave Macmillan, New York.
- Liu, G. (2004). "Estimating Energy Demand Elasticities for OECD Countries: A Dynamic Panel Data Approach." Discussion Papers No. 373, March 2004 Statistics Norway, Research Department.
- Maddala, G. S., R. P. Trost, H. Li and F. Jourtz (1997). "Estimation of short-run and long-run elasticities of energy demand from panel data using shrinkage estimators." *Journal of Business & Economics Statistics* 15 (1): 90-100.
- Miketa, A. (2001). "Analysis of energy intensity developments in manufacturing sectors in industrialized and developing countries." *Energy Policy* 29: 769-775.
- MoF(2009). *Economic Survey 2008*. Ministry of Finance, Government of Nepal. Katmandu Nepal.
- MoF(2009). *Economic Survey 2007-2008*. Ministry of Finance, Government of India.
- Narayan, P.K., R. Smyth and A. Prasad (2007). "Electricity consumption in G7 countries: A panel cointegration analysis of residential demand elasticities." *Energy Policy* 35 (9): 4485-4494.
- Pachauri, R.K. (2004). "The future and India's economic growth: the natural resources and energy dimension." *Futures* 36: 703-713.
- Pesaran, M. H. and R.P. Smith (1995). "Estimating long-run relationships from dynamic heterogeneous panels" *Journal Econometrics* 68(1): 79-113.
- Pesaran M. H, R. P. Smith and T. Akiyama (1998). *Energy Demand in Asian Developing Economies. A World Bank Study*. Oxford University Press: New York.
- Pindyck, R.S. (1979). *The Structure of World Energy Demand*. MIT Press: Cambridge, Massachusetts and London, England.
- Pokharel, S. (2007). "An econometric analysis of energy consumption in Nepal." *Energy Policy* 35: 350-361.
- Schmalensee, R., T.M. Stoker and R.A. Judson (1998). "World Carbon Dioxide Emissions: 1950-2050." *The Review of Economics and Statistics* 80: 15-27.
- Shell International Ltd-Global Business Environment Unit (2001). *Energy Needs, Choices and Possibilities-Scenarios to 2050*. Intergovernmental Panel on Climate Change (IPCC), Geneva.
- Sidayao, C.M., M. Khaled, J.G. Ranada and S. Saicheua (1987). "Estimates of Energy and Non-energy Elasticities in Selected Asian manufacturing Sectors". *Energy Economics* 9 (2): 115-128.
- Srivastava, L. and N. Misra (2007). "Promoting regional energy co-operation in South Asia." *Energy Policy* 35(6): 3360-3368.
- Streets, D.G. (2003). "Environmental benefits of electricity grid interconnection in Northeast Asia." *Energy* 28: 789-807.
- Shukla, P. R., S, Dhar and D. Mahapatra (2008). "Low-carbon society scenarios for India". *Climate Policy (Supplementary)* 8: 156-176.
- TERI (2007). *Vulnerability to Climate Variability and Change in India: Assessment of Adaption Issues and options*. The Energy and Resource Institute (TERI), New Delhi.
- UNPD (United Nations Population Division) (2007a). *World Population Prospects: The 2006 Revision*. United Nations, New York.
- UNFCCC (United Nations Framework Convention on Climate Change) (1992). *United Nations Framework Convention on Climate Change. Convention text, UNEP/WMO Information Unit of Climate Change (IUCC) on behalf of the Interim Secretariat of the Convention*. IUCC, Geneva.
- Uri, N.D. (1979). "Energy Demand and Inter-fuel Substitution in India". *European Economic Review* 12(2): 181-190.
- USAID SARI/ENERGY (2008). *Annual report 2008*. Contact number 386-C-00-07-00033-00.

- Wagner, M. (2008). "The Carbon Kuznets Curve: A Cloudy Picture Emitted by Bad Econometrics?" *Energy and Resource Economics* 30: 388-408.
- WECS (2001). *Water Resources Strategy*. Water and Energy Commission Secretariat, Kathmandu Nepal.
- Williams, M. and P. Laumas (1981). "The Relationship between Energy and Non-Energy Inputs in India's manufacturing Industries", *The Journal of Industrial Economic* 30(2): 113-122.
- Won-Cheol Yun and Zhong Xiang Zhang (2006). "Electric power grid interconnection in Northeast Asia." *Energy Policy* 34: 2298–2309
- World Bank (2008). *Potential and Prospects for Regional Energy Trade in South Asia Region*. Formal Report 334/08. World Bank, Washington D.C.
- World Bank (2008). *World Development Indicators 2008*. World Bank, Washington D.C.
- World Business Council for Sustainable Development (1997). *Exploring sustainable Development-Global Scenarios 2000-2050*. WBCSD Scenario Unit. Conches, Switzerland.
- World Business Council for Sustainable Development (1999). *Energy 2050-Risky Business*. WBCSD Scenario Unit. Conches, Switzerland.
- World Business Council for Sustainable Development (2000). *The Wizard of US*. WBCSD Scenario Unit. Conches, Switzerland.

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जुनको आधाआधीतिरको कुनै घमाइलो दिन थियो-, बिदाको दिन हुनाले म अलि ढिला उठेको थिएँ। बाहिर बरण्डामा एकजोडी परेवा थिए। यता परेवा धेरै देखिएपनि आफ्नै बरण्डामा अहिलेसम्म देखेको थिएँ।

एकदुई दिनपछि अड्डा जाँदै- गर्दा बाटोको एउटा घर बाहिर एकजना जापानी बृद्ध आफ्नो एक हातमा एउटा परेवा राखेर अर्को हातमा रहेको चारा खुवाईरहेका थिए। मलाई पनि त्यस्तै गर्ने रहर जाग्यो तर मलाई थाहा थियो मेरो बरण्डामा आउने परेवाहरु त्यसरी सजिलै मेरो हातमा आउनेछैनन् किनभने त्यस्तो हुनका लागि परेवासंग गहिरो आत्मीयता बनिसकेको हुनुपर्छ। भोलिपल्ट बरण्डामा अतिकति चामल छरिदिएँ मैले। त्यसपछि हरेक दिन बिहान अलिअलि चामल छरिरहेछु परेवाका लागि। चामल छरेपछि हार् आउने --- परेवाको बथान देखेपछि मन साँच्चि नै शान्त हुन्छ।

एक दिन देखेँ एउटा परेवा कतैबाट ल्याएको सिन्का मुखले च्यापेर बरण्डामा बसिरहेको थियो। गुँड बनाउँदै" भन्ने आयो मनमा "।छ जस्तो छ, कता बनाउँदैछ भनेर खोजिन। जुन २२ को बिहान परेवा बरण्डाको एक छेउमा रहेको एअरकण्डिशनर- यूनिटमा छेलिएर बसिरहेको देखेँ। पहिला पनि देखेको थिएँ र चारो खोजिरहेको होला भनेर त्यति वास्ता गरेको थिएँ। हेरेको, परेवाले गुँड बनाईसकेछ। बेलुका फर्केर आएपछि फेरि हेरेको, एउटा फुल थपिएछ दिउँसो। त्यसको भोलिपल्ट हेर्दा दुईटा फुल थिए। परेवा फुल कुरेर

बसिरहेको थियो र म नजिक गएपछि भुर्र उडेर नजिकको बिजुलीको तारमा गएर बस्यो। यो अवस्थाको --- परेवालाई ब्यबधान खडा गर्नु उचित नलागेर फोटो लिनेतिर लागिन। साँझ भने नजिकै गएर हेर्दा पनि परेवा भागेन।

परेवा र परेवाको गुँडले बाल्यकालको एउटा घटनाको याद गाढा भएर आयो। हाम्रो घरको बाँसको दलिनमा कुमालकोटीले गुँड बनाएको थियो। म त्यतिखेर २ कि ३ मा पढ्थेँ। एक दिन दिउँसो मैले कुमालकोटीको गुँड लड्थेँ घोचेर भत्काईदिएँ। राती धेरै बेरसम्म कुमालकोटी भुन्भुनाएर आफ्नो घर भएको ठाउँमा रोईरहेको थियो। मलाई साह्रै पछुतो लागेको थियो त्यतिबेला। तर म कुमालकोटीलाई तुरुन्तै घर बनाएर दिन सकिदंनथे! कुमालकोटीको कति समयदेखिको श्रम र सपनालाई मैले एक निमेषमा ध्वस्त बनाईदिएको थिएँ। मेरो छुकछुके बाल्यकालमा घटेको त्यो घटनाको लागि म आजसम्म पनि पछुताईरहेछु। तपाईंलाई पत्थार नलाग्न सक्छ तर हरेक दिन एक पटक र कहिलेकाहीं त धेरै पटक त्यो घटना मेरो मनमा आएकै हुन्छ, मलाई पश्चातापले गलाएकै हुन्छ।

सानो होस् या ठूलो, हरेक जीवको गुँड उसका सपनाहरूले बनेको हुन्छ, उसले तिनै सपनाहरूका भितामा अडेस लगाएर, सपनाहरूमाथि सुतेर र सपनाहरूमाथि नाचेर आफूलाई सुरक्षित ठानेको हुन्छ। आफ्नो जीवनलाई भविष्यसम्म तन्काउन र आफ्ना अधूरा सपनाहरू प्रक्षेपण गर्नका लागि नयाँ पुस्ता पनि उसले त्यहि गुँडमा हुर्काउँछ। त्यस्तो त्यो गुँड भत्कँदा कोहि किन नरोओस्!

हाम्रो मनमा कुमालकोटीको छवि कुनै हानी नगर्ने सुधो जीवको भएर पनि होला, त्यो घटनाले ममा यस्तरी छाप छोडेको। नत्र त जानीजानी घर नजिकका अरिगाल वा बारुलाका गोलामा आगो लगाउँदा वा स्प्रे हानेर साङ्गला संहार गर्दा कहिल्यै पछुतो लागेन। जिन्दगीमा जानीनजानी अरु कति-स साना जीवको पनि गुँड-भत्काईन्छ होला।

अब लागौं परेवातिरै। परेवा धेरै दिनसम्म फुललाई ढाकेर बसेको देखिन्थ्यो। हामी परेवाको नजिकै पर्नेगरी चारा छर्दिन्थ्यौं। हामीले छोरीलाई भने देखाएनौं, लड्थेँ घोचेर परेवालाई सास्ती देली फेरि भनेर। जुलाई ८ सम्म पनि परेवा फुललाई ढाकेर बसिरहेको थियो, त्यसपछि केहि दिन त्यति ध्यान गएन।

जुलाई १४ को साँझ परेवा नभएको मौकामा हेर्दा भने एउटा बच्चा र एउटा फुल देखियो। बच्चा झुसिलो देखिन्थ्यो, एकबच्चा कोरलिएको दुई दिनको भईसकेको हुनुपर्छ। एउटा मात्रै- (?) देख्दा अचम्म लाग्यो। परेवाको जीवनप्रजनन चक्रका बरेमा मसंग खासै/चक्र- ज्ञान छैन। समय निकालेर अलि अलि यसबारेमा- पढ्नुपर्ला जस्तो लागेको थियो, त्यो 'समय' खासै धेरै जुरेन। जति पढियो तिनको आधारमा बुझ्दा, परेवाले सामान्यतया दुईटा फुल पार्ने रहेछ। दुईटा फुलबाट केहि दिनको अन्तरमा चल्ला निकलने रहेछन् कि कुन्नि, त्यो कुरो भने बुझिएन।

यस्तै फुलको सुरक्षा गर्न र चल्ला (?) हुर्काउन भाले पोथी दुबै लाग्छन् रे। त्यसकारण मैले हरेक दिन देख्ने- फुल छोपेर बसेको परेवा पोथिमात्रै नभएर भाले वा पोथी कुनै पनि हुन सक्थ्यो। भाले र पोथीको शारीरिक बनौटमा हुने फरक पनि अलिअलि पढेको हुँ तर त्यतिका- भरमा खुट्याउन सकिँन।

जुलाई १९ मा यस्तो भएको छ परेवाको त्यो बच्चा वा चल्ला, जे भनिन्छ। माउको रंगमा ढल्दै आएको देखिन्छ। साँझबिहान हामीले- हेर्दा माऊ भने देखिएको थिएन।

एउटा फुल भने अझै जस्ताको तस्तै छ। त्यो फुल पूरै विकसित नभएकोले बच्चा ननिकलिएको होला शायद।

त्यसपछि पनि हरेक दिन बिहान र साँझ घर फर्केपछि परेवाको बच्चा हेर्ने काम नियमितनै रह्यो। हामीले हेर्दा माऊ नदेखिएपनि बिहान सबेरै भने पखेटा फडफडाएको आवाज सुनिन्थ्यो, त्यस्तै रात परेपछि परेवा घुरेको र बच्चो चीर्ची गरेको-- सुनिन्थ्यो। त्यसैले रातभरि पक्का पनि माऊ पनि हुन्थ्यो होला। दिउँसो हामी नहुँदा पनि चारा बोकेर आउँथ्यो होला।

जुलाई २५को यो फोटोमा त वयस्क परेवाजस्तै देखिएको छ र गुँडभित्रै ठाउँ सरेर बस्न थालेको देखिन्छ।

जुलाई २९ मा नजिकैको ब्लकमाथि चढेर बसेको छ। साहसिक यात्राको पहिलो प्रयास होला यो उस्को !
३१ जुलाईमा हेर्दा फेरि पहिलेकै ठाउँमा देखिन्छ। अब त टाउको पनि पूरै कालो भईसकेछ।

यो लेखिरहुँदा, एक छिन पहिला एक पटक हेर्ने पुगेको थिएँ। माऊ लबच्चा भलाकुसारी गर्दै थिए। मैले झ्या-खोल्दाको आवाजले गर्दा माऊ भुर्उड्यो। बच्चो अँध्यारो ठाउँमा थियो ----, राम्रो फोटो खिच्न सकिएन। रंग-ढंग र बसाई पूरै माऊको जस्तो थियो र तुरुन्तै उड्ला जस्तो लाग्थ्यो।

आजभोलिनै उड्ला शायद। यसरी परेवाको एउटा पुस्ता हुर्काउने काम सफलतापूर्वक सम्पन्न हुनेछ।

परेवाले एकचोटि बनाएको आफ्नो गुँडलाई के गर्छ, मलाई थाहा छैन; तर हाम्रो गुँडको एक छेउमा खडा यो गुँडको भविष्य भने अब उसको वशमा छैन।

'भत्काईने हुँदा यो घर छोड्न भनेर हामीलाई धेरै पहिला सूचना आईसकेको छ। यो घर केहि वर्षभित्र भत्काईनेछ भन्ने कुरा हामीलाई यहाँ पस्नुभन्दा पहिल्यै भनिएको थियो। हामीले सोचेका थियौं हामी जापान बसुञ्जेल भने नभत्काईएला। यो स्थितिमा पाउनुपर्ने सुविधा, निश्चित अवधिको पैसा फिर्ता आदिको कुरा भईसकेको छ, त्यता समस्या छैन। तर नयाँ घर पन्तरा सार्नु-नयाँ गुँड खोज्नु एउटा झञ्झट हो र पोका-झन् महाझञ्झट! तर गुँडविना जिन्दगी चल्दैन !

हामी नयाँ गुँडमा जाँउला, परेवाले नयाँ गुँड बनाउलान्।

आआफना-आफना गुँडमा हामी आ- सपनाहरुमा अडेस लगाएर र आ आफना-आफना सपनाहरुसंग नाचेर आ- जिन्दगी बिताउनेछौं।

कसैले एउटैमा जिन्दगी कटाउलान्, कसैको जिन्दगी धेरैमा बाँडिएर कट्ला; तर जिन्दगी भनेको गुँड हो, सिर्फ गुँड, टाउको लुकाउने गुँड।

Principal

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Five years ago when I was in a school serving as a teacher, the principal always made a fuss of nothing but my dress. My dress was not ideally simple, it was honestly cheap rather. What unperfected my attire according to him was unironed clothing and inexpensive shoes.

Back in the teacher's room, when I narrated the story to my colleagues, some lady staffs let out giggle not raising their head from students' 'homework'. Meanwhile, computer sir and EPH sir turned up, put their tie on and left the room right away. I too, groped for my tie in my out-fashioned bag and inserted my head inside its circumference.

"Sir", one day I stole his cheerful moment, "Does it make any difference if tie is made optional?" I had managed to sound my query spontaneous and I administered a smile to demonstrate the matter was of frivolous concern. He was not short-tempered, so I hadn't expected wrath from him. He briefed in a matter-of-fact tone about the importance of tie. "How can you teach without a tie, sir?" I recollect his awkward reply.

The principal wore cotton pants and shirt usually with his coat; and under no circumstance, tie would leave his neck. Once I cracked a joke to my teaching staffs that he even went abed with his tie on. His physic favored him look like a principal and scanty hair on his skull made him more matured even in his early thirties.

My principal was vehemently committed to the amelioration of the school. He arrived at his office at an early hour while his juniors gradually entered the premise only after 9 a.m. They straight climbed onto official cabin of the principal, checked in and sneaked

out so as to avoid eye contact with him. He then dropped by every classroom once a day. Staying idle of him was rare scene during his duty.

He distributed heap of papers to us and ordered to complete the assignment thereof. Once we got it done, he would hand over another set of paper. In fact, we had paper phobia in the long run. Saturday only came for us to remind his paper. He didn't let us stay home even on holidays.

He was not cynical but pedantic who never lent his ears for good things. Consequently, it brought about resignation of the teachers turn by turn. At the end of the session he became the only old staff in the school.

शैक्षिक पाठ्यक्रममा समेट्न नसकिएको विषय प्राकृतिक प्रकोप, असर र पूर्व तयारी

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(क) भूमिका :

नेपाल विश्वमा प्राकृतिक प्रकोपको हिसाबले अत्यन्तै खतरा देश मानिन्छ । जसका लागि धरातलिय विविधता(Rugged and Steep Topography) ,मौसमी विविधता (Extreme Weather Event), कमजोर भौगोलिक वनोटको अवस्था (Fragiual Conditions) आदिले महत्वपूर्ण भूमिका खेलेको पाइन्छ । त्यस्तै जनसंख्या वृद्धि, अवेवस्थित शहरीकरण, जनचेतनाको कमि जस्ता तत्वले पनि यसमा प्रत्यक्ष, अप्रत्यक्ष प्रभाव पारेको देखिन्छ । गत २६ वर्षको प्रकोप क्षतिलाई अध्ययन गर्दा प्रत्येक वर्ष सरदर १००० भन्दा बढी व्यक्तिले अकालमा ज्यान गुमाउनु परेको छ । जसमध्ये प्रत्येक वर्ष ३०० भन्दा बढीले त बाढीपहिरोको कारणले मात्र ज्यान गुमाएका छन् । त्यस्तै वार्षिक एक अरब २० करोड ८० लाख भन्दा बढी आर्थिक क्षति व्यहोर्नु परेको तितो तथ्य त छदैछ । तसर्थ पनि प्राकृतिक प्रकोपबारे अनिवार्य अध्ययनको आवश्यकता देखिन्छ । विश्वका अधिकांश देशहरुमा प्राकृतिक प्रकोप, असर र पूर्वतयारीका पाठ्यक्रम अनिवार्य रुपमा शिक्षामा समावेश गरेको पाइन्छ ।

(ख) प्रकोप असर :

नेपालको सन्दर्भमा प्राकृतिक प्रकोप भन्नाले प्रमुखरुपमा बाढीपहिरो, भूकम्प, आगलागी, हिमतालहरु फूटनु, विभिन्नरोगका महामारी फैलनु, खडेरी आदी वुभ्नु पर्छ ।

१. बाढीपहिरो (Land slide, Debris Flow and flood)

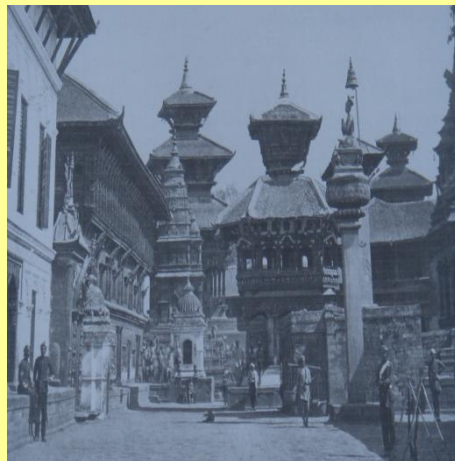
नेपालमा बाढीपहिरो प्रत्येक वर्ष नियमित प्रकृया जस्तै भइरहेको छ । विशेष गरेर वर्षायाममा यसको प्रभाव अत्यन्त बढी देखिन्छ । प्रत्येक वर्ष सयौं व्यक्तिले बाढीपहिरोको कारणले अकालमै ज्यान गुमाउनु परेको छ । करोडौं रुपैया बराबरको क्षति व्यहोर्नु परेको छ । वर्षेनि हजारौं मानिस घरवारविहिन भएका छन् । विगत दुई दशकको अध्ययनलाई हेर्दा एक तिहाई व्यक्तिले बाढीपहिरोको कारणले मात्रै ज्यान गुमाउनु परेको छ ।



२. भुकम्प (Earthquake):

नेपालमा विगतका भुकम्प सम्बन्धी खासै तथ्याङ्क भेटिदैन । वि. सं. १९९० माघ २ गते पूर्व नेपाल केन्द्रविन्दु भई गएको ठूलो भुकम्प (८.३ रेक्टरस्केलको) पछि मात्र भुकम्प सम्बन्धी आधिकारीक रुपमा रेकर्ड राख्न थालेको देखिन्छ । १९९० सालको भुकम्पको कारण ८५१९ भन्दा बढी व्यक्तिको मृत्यु भएको थियो । जसमध्ये ४२९६ भन्दाबढी व्यक्ति काठमाडौं उपत्यकाका मात्रै थिए । करिब २ लाख भन्दा बढी भवन, मन्दिर पाटीपौवा आदि क्षतिग्रस्त भएका थिए । जसमध्ये करिब ८१ हजार भन्दा बढी त पूर्णरुपमा क्षतिग्रस्त भएका थिए । जसमध्ये काठमाडौं उपत्यकामा मात्र ५५ हजार भन्दा बढी क्षतिग्रस्त घरहरुमध्ये १२३९६ पूर्ण रुपमा क्षतिग्रस्त भएका थिए । अरबौ रुपैया बराबरको क्षति भएको थियो । तदपश्चात, त्यसैको सम्भना स्वरुप माघ २ गतेलाई भुकम्प दिवसको रुपमा मनाउन थालियो ।

अनुसन्धानबाट के देखिएको छ भने प्रत्येक ८० देखि १०० वर्षको अन्तरमा नेपालमा एउटा ठूलो भुकम्प (८ रेक्टर स्केल वा सो भन्दा बढी) जाने गरेको छ । अबको केही वर्ष भित्रैमा फेरी एउटा ठूलो भुकम्प जनसक्छ । यही अवस्थामा नै उक्त भुकम्प गए काठमाण्डौं उपत्यकामा मात्रै करिब ४० हजार भन्दा बढीको ज्यान जानसक्छ भने ९० हजार भन्दा बढी घाइते हुनेछन् । करिब ६०% देखि ७०% भवनहरु क्षतिग्रस्त हुनेछन् । अरबौ रुपैया बराबरको क्षति हुने छ ।



१० साल अघिको पञ्चपन्न भ्याले दरवार



१० सालको भुकम्प पछिको पञ्चपन्न भ्याले दरवार

३. आगो (Fire)

विशेष गरेर सुख्खायाममा आगलागीका घटनाहरु विकराल रूपमा देखा पर्दछन् । नेपालको जंगलमा भएका आगलागीका घटनाहरुको खासै लेखाजोखा पाइदैन । विशेष गरेर तराई क्षेत्रका खर, पराल, गहुँका छवाली आदिबाट निर्मित छाना भएका घरहरु फाल्गुण देखि जेठ सम्म आगलागीमा परेको देखिन्छ । विगत वर्षका केही घटनाहरुलाई नियाल्दा यसबाट वार्षिक करिब ५० जनाको ज्यान गएको छ भने वार्षिक ३ करोड ५० लाख भन्दा बढीको क्षति भएको पाइन्छ ।



४. हिमताल (Glacial Lake):

नेपालमा २३०० बढी हिमताल छन् । वर्षेनी तालको किनारा खीइन गई कमजोर हुने तथा तालको आकार प्रकार बढ्ने भइरहेको छ । फलस्वरुप कुनै पनि समयमा हिमताल फुट्न गई विकराल अवस्था आउन सक्छ ।



५. महामारी (Epidemics):

एक्काइसौं शताब्दीमा पनि उपचार नपाई मर्नु नेपालको नियति हो । विशेषगरी दुर्गम ग्रामिण क्षेत्रमा बस्ने जनताहरु विभिन्न महामारी जस्तै हैजा टाईफाइड, ज्वरो, जण्डीस आदिको कारण उपचार नपाई ज्यान गुमाइरहेका छन् । भएका अस्पताल स्वास्थ्य केन्द्र पनि स्रोत साधनको अभावमा जिर्ण अवस्थामा छन् । फलस्वरुप वार्षिक ५९९ भन्दा बढी जनताले अकाल मै ज्यान गुमाउन परेको छ ।

ग) पूर्वतयारी :

प्राकृतिक प्रकोपलाई कसैले पनि रोक्न वा नियन्त्रण गर्न सक्दैन । बरु यसबाट हुनेक्षतिलाई केहीहदसम्म न्यून गर्न सकिन्छ । त्यसका लागि पूर्व तयारीमा ध्यान दिनुपर्छ ।

- विगतका प्रकोपका क्षतिबाट पाठ सिकी त्यसबाट पर्ने असरबाट कसरी बाँच्न सकिन्छ ? भनी जचेतना जगाउने कार्यक्रमहरु नियमित गर्ने ।
- क्षतिबाट जोगिनका लागि विभिन्न प्रत्यक्ष अनुभव हुनेखालका तालिम, गोष्ठी, सेमिनार नियमित गर्ने ।
- व्यवस्थित शहरीकरणमा ध्यानदिने ।
- भवन निर्माण गर्दा भवन निर्माण आचार संहिता लागू गर्ने ।
- यदि प्रकोप आइ हालेमा क्षतिबाट जोगाउन ठाउँ ठाउँमा विशेष उपचार शैया, आपतकालिन खाद्यान्न कक्ष आदिको व्यवस्था गर्ने ।
- बनीसकेका कमजोर र पुराना भवनहरुमा प्रकोपसँग जुध्नसक्ने क्षमतामा बृद्धि (Strengthening) गर्ने ।
- दिर्घकालिन प्रकोपक्षति न्यूनीकरण परियोजना लागू गर्ने ।

घ) उपसंहार:

एक अनुसन्धान अनुसार नेपाल विश्वमा भुकम्पको हिसाबले एघारौं खतरा र बाढी बाहिरको हिसाबले तेस्रो खतरा मूलक पर्छ । त्यस्तै अर्को अध्ययन अनुसार काठमाण्डौ शहर विश्वकै अत्यन्तै खतरा शहर भनी पुष्टी गरेको छ । त्यसै वार्षिक विकाश बजेटको १२% भन्दा बढी प्रकोप ग्रस्त क्षेत्रमा उद्धार तथा पुनःनिर्माण गर्दैमा गएको छ । जसबाट पनि प्रकृतिक प्रकोपको महत्व प्रष्ट हुन्छ । तसर्थ आगामी दिनहरुमा विश्वका अधिकांश देशहरुले जस्तै नेपालले पनि विद्यालयस्तर देखी उच्च शिक्षा सम्म अनिवार्य रुपमा प्रकृतिक प्रकोप, यसका असरहरु र पूर्व तयारी सम्बन्धी पाठ्यक्रमहरु तयार पारी लागू गर्नुपर्ने देखिन्छ । अझ नयाँ संविधान लेखनको यस पूर्वसन्ध्यामा शिक्षा नितिको कुनै पाटोमा यसलाई पनि समावेश गर्नुपर्ने देखिन्छ । खुल्ला विश्वविद्यालयको अवधारण अगाडी आइरहेको बेलामा छुट्टै प्रकृतिक प्रकोपसम्बन्धी विश्वविद्यालय खोल्न सके यस भूमण्डलीय विश्वमा देशी विदेशी प्रशस्तै विद्यार्थी अनुसन्धान विद्, बुद्धिजिवी, सर्वसाधारण सबै क्षेत्रका व्यक्तिलाई यस क्षेत्रमा तान्न सकिन्छ । जसबाट वर्षेनी हुँदै आएको अरबौको क्षति न्यूनीकरण गर्न सकिन्छ । आशा गरौं, सम्बन्धीत पक्षको यसमा ध्यान जानेछ ।

प्रेम

प्रेमका लहरहरु छल्किरहेछन
स्पन्दन मुटुका धडकिरहेछन
केबल तिम्रो यादमा
केबल अतितको यादमा ।

तिम्रो र मेरो प्रेम काहानी
दिल र दिलको त्यो लगानी
तिमी मेरी है म तिम्रो हु
हावा सँगै दौडे पनी
पानी मुनी पौडे पनी ।

तिमी घाम भए म त्यसको छाया
म घाम भए तिम्री त्यसको छाया
गंगाको जल र त्यो हाम्रो माया
तिमी दाया भए म बाया
र म बाया भए तिम्री दाया ।

नरोक्न सक्छ अब कसैले
न छेक्न सक्छ ठूला दिवारले
तिमी मलाई बोलाउ म तिम्रीलाई
जब सम्म बुझ्दैन समाजले हामीलाई ।

म गीत लेख्छु, तिम्री गीत गाउ
म संगीत दिन्छु तिम्री नाचन आउ
विहानीको घाम संगै तिम्री मलाई बोलाउ
गाजलु नयन भित्र तिम्री मलाई सजाउ ।



मात्रिका प्रसाद कोइराला
“ निडर”

रुयुकु विस्वविध्यालय,
ओकिनावा,
जापान

रचना मिति २०५३।२।२३

About Nesaj

NESAJ (Nepalese Students' Association in Japan) is an organization of Nepalese students, academia and intellectuals from all across Japan --from Hokkaido in the north to Okinawa in the south. It was established in the year 1997 with the aim of bringing Nepalese students and Nepalese graduates of Japanese universities living in Japan to a close contact and to promote their academic, professional and other mutual interests through a wider, regular and frequent exchange of views and ideas as well as to put collective efforts to advance their mutual interests. It was also aimed to provide necessary information regarding study opportunities in Japan to the interested Nepalese students and to maintain close links with other institutions to promote cultural and academic exchanges between Nepal and Japan.

Members of NESAJ include Nepalese students enrolled in all university levels -- Japanese language, undergraduate courses, graduate courses and research-- in Japan, Nepalese alumni of Japanese universities and individuals involved in the academic activities in Japan. NESAJ also awards its honorary membership to the individuals with extraordinary academic achievement(s) and/or meritorious service(s) to Nepal.

NESAJ has made it possible for its members to know more people, to increase friendship among the Nepalese students all across Japan and has provided a forum for its members to exchange their ideas and knowledge. The activities of NESAJ include friendship gatherings in various parts of Japan, symposiums and cultural programmes to mark important events, Nepalese social and cultural gatherings, and celebration of NESAJ day marking the day of declaration of its constitution.

About Nesaj Logo:



The ellipse (oval Shape) represents earth with its water body blue, above which is a large book representing education and research. The map of Nepal appears at the back of Japan, which means that people coming from Nepal are in Japan doing study and research, which is also represented by the same large book. The flags of the two countries symbolize a strong bond and a friendly relationship between Nepal and Japan. Below the ellipse appears the name of the Association in capital letters as NEPALESE STUDENTS' ASSOCIATION IN JAPAN. Then comes the establishment year of the Association and a banner with five white letters NESAJ representing the abbreviation of the name of the Association. The Nesaj logo was designed by Netra Prakash Bhandary of Ehime University.

Current (11th) Executive Committee Member's List ('09-'10)

Name	Designated Post	University
Rajendra Prasad Parajuli	President	University of Tokyo
Moti Lal G imire	Vice-President (Hokkaido)	Hokkaido University
Saroj Kandel	Vice-President (Honshu)	Chubu University
Pralhad Upreti	Vice-President (Shikoku)	Ehime University
Ram Prasad Dhungana	Vice-President (Kyushu)	Kyushu University
Madhav Prasad Sedhain	Executive-Secretary	Soka University
Bimal Adhikari	Joint-Secretary	Aichi Shukutoku University
Bhima Dhungana	Treasurer	University of Miyazaki
Bishow Raj Sapkota	Executive Member	University of Tokyo
Atul Upadhyay	Executive Member	Kagoshima University/Univeristy of the Rukyus
Jiwak Raj Bajracharya	Executive Member	Shizuoka Sangyo University
Suraj Shrestha	Executive Member	Yokohama System College
Jesan Kumar Pandey	Executive Member	Tokyo Bunka Gakuin University
Sobita Koirala Gautam	Executive Member	Nagoya University
Madan Kumar Paudel	Executive Member	Kyushu University

Past Executive Committee Member's List**10th Executive Committee Member's List ('08-'09)**

Name	Designated Post	University
Ujjwal Neupane	President	Japan Advanced Institute of Science & Technology
Damodar Lamsal	Vice-President (Hokkaido)	Hokkaido University
Madhav P. Sedhain	Vice-President (Honshu)	Soka University
Achyut Nainbasti	Vice-President (Shikoku)	Ehime University
Matrika P. Koirala	Vice-President (Kyushu)	University of Ryukus
Rajendra Parajuli	Executive-Secretary	University of Tokyo
Saroj Kandel	Joint-Secretary	Chubu University
Madhu Maya Adhikari Aryal	Treasurer	Nagoya University
Asish Kumar Acharya	Executive Member	Tohoku University
Anuj Ratna Bajracharya	Executive Member	Osaka University
Bimal Adhikari	Executive Member	Aichi Shukutoku University
Sunil K. Dwivedi	Executive Member	University of Ryukus
Bisheswor Regmi	Executive Member	Rikkyo University
Kapana Paudel	Executive Member	Asahi University

9th Nesaj Executive Committee ('07-'08)

Name	Designated Post	University
Rishab Paudel	President	Gifu University
Yadab Prasad Dhakal	Vice-President (Hokkaido)	Hokkaido University
Bikau Shukla	Vice-President (Honshu)	University of Tokyo
Pashupati Paudel	Vice-President (Shikoku)	Ehime University
Hari Bahadur Pahari	Vice-President (Kyushu)	Kyushu Sangyo University
Ujjwal Neupane	Executive-Secretary	Japan Advanced Institute of Science & Technology
Lushun Chalise	Joint-Secretary	Osaka University
Seema Kafle	Treasurer	Hokkaido University
Cholendra Adhikari	Executive Member	Chubu Univeristy
Brijendra Lal Shrestha	Executive Member	Osaka Sangyo University
Sandeep Dhungana	Executive Member	Tohoku University
Ashwin Bhakta Kharel	Executive Member	Yokohama National University
Satish Bastola	Executive Member	University of Yamanashi
Madhav P. Sedhain	Executive Member	Soka University

8th Nesaj Executive Committee ('06-'07)

Name	Designated Post	University
Kumar Simkhada	President	Tohoku University
Saseem Poudel	Vice-President (Hokkaido)	Hokkaido University
Suresh Kumar Sharma	Vice-President (Honshu)	Toyohashi University
Puspa Raj Poudel	Vice-President (Shikoku)	Kagawa University
Santosh Poudel	Vice-President (Kyushu)	Fukuoka University
Pradyumna Raj Poudel	Executive-Secretary	Ibaraki University
Anu Sharma	Joint-Secretary	Saitama University
Saphala Dhital	Treasurer	Keio University
Damaru Ballabha Paudel	Executive Member	University of Tsukuba
Dinesh K.C	Executive Member	Kichijoji Language School
Himendra Jha	Executive Member	Hokkaido University
Ram Kumar Giri	Executive Member	New Japan Academy
Sushil Shrestha	Executive Member	Tokyo Institute of Technology
Swontantra Poudyal	Executive Member	Waseda Institute of Technology

7th Nesaj Executive Committee ('05-'06)

Name	Designated Post	University
Jigyan K. Thapa	President	Yokohama National University
Bijay Giri	Vice-President (Hokkaido)	Hokkaido University
Pujan Basnet	Vice-President (Honshu)	Sophia University
Saraswoti Bharati	Vice-President (Shikoku)	Ehime University
Desh Raj Sonyok	Vice-President(Apr - Sep) (Kyushu)	Kyushu University
Santosh Poudel	Vice-President(Oct-Mar) (Kyushu)	Fukuoka University
Achyut Sapkota	Executive-Secretary	Osaka Sangyo University
Prabina Bhandari	Joint-Secretary	Ritsumeikan University
Bhoj Raj Pantha	Treasurer	Saitama University
Bhupal Man Shrestha	Executive Member	Soka University
Bhupal Govinda Shrestha	Executive Member	Tokyo Agriculture University
Ghanshyam Gautam	Executive Member	Osaka Sangyo University
Harendra Bhandari	Executive Member	Kobe University
Kumar Simkhada	Executive Member	Tohoku University
Madan Sigdel	Executive Member	Hokkaido University
Shyam Sundar Budhathoki	Executive Member	Nihon University

6th Nesaj Executive Committee ('04-'05)

Name	Designated Post	University
Kaushal Raj Sharma	President	Ritsumeikan University
Sanjaya Acharya	Vice-President (Hokkaido)	Hokkaido University
Pandab Raj Karkee	Vice-President (Honshu)	Waseda University
Rajendra Niraula	Vice-President (Shikoku)	Kochi University of Technology
Jiwan Sakya	Vice-President (Kyushu)	Seinan Gakuin University
Nripendra Shrestha	Executive-Secretary	Osaka University
Jigyan Kumar Thapa	Joint-Secretary	Yokohama National University
Pujan Basnet	Treasurer	Sophia University
Rabin Tuladhar	Executive Member	Saitama University
Achyut Sapkota	Executive Member	Osaka Sangyo University
Bishwa Raj Kandel	Executive Member	Soka University
Vivek Kumar Gupta	Executive Member	Saitama University
Harendra Bhandari	Executive Member	Kobe University
Aayam Lamichhane	Executive Member	Tohoku University
Tej Prasad Gautam	Executive Member	University of Tokyo

5th Nesaj Executive Committee ('03-'04)

Name	Designated Post	University
Govinda Raj Pandey	President	Saitama University
Sanjay Giri	Vice-President (Hokkaido)	Hokkaido University
Bimal Shrestha	Vice-President (Honshu)	Osaka-Sangyo University
Durga Bahadur Dura	Vice-President (Shikoku)	Kochi University
Jiwan Shakya	Vice-President (Kyushu)	Seinan Gakuin University
Shailendra Amatya	Executive-Secretary	Gifu University
Bijan Gurung	Joint-Secretary	University of Tokyo
Pujan Basnet	Treasurer	Sophia University
Jhabindra Prasad Ghimire	Executive Member	Saitama University
Kali Prasad Nepal	Executive Member	Tokyo Institute of Technology
Paras Mandal	Executive Member	University of the Ryukyus
Nirmal Pahadi	Executive Member	Tohoku University
Sushil Shrestha	Executive Member	Tokyo Institute of Technology
Saseem Poudel	Executive Member	Hokkaido University
Nawa Raj Pradhan	Executive Member	Kyoto University

4th Nesaj Executive Committee ('02-'03)

Name	Designated Post	University
Kumar Basnet	President	Sophia University
Hem Nath Ghimire	Vice-President (Hokkaido)	Hokkaido University
Govinda Raj Pandey	Vice-President (Honshu)	Saitama University
Prem Parsad Poudel	Vice-President (Shikoku)	Kyushu University
Chandika P Bhatta	Vice-President (Kyushu)	Ehime University
Bhooshan R Neupane	Executive-Secretary	Nara Institute of Science & Technology
Shubash Lohani	Joint-Secretary	Tokyo University
Prasamsa Singh	Treasurer	Nagoya University
Aayam Lamichhane	Executive Member	Tohoku University
Amrit Tiwari	Executive Member	Niigata University
Chandi Subedi	Executive Member	Chiba University
Kedar Adhikari	Executive Member	Hokkaido University
Nripendra L Shrestha	Executive Member	Osaka University
Subarnalata Tuladhar	Executive Member	Saitama University
Sushil Shrestha	Executive Member	Tokyo Institute of Technology

3rd Nesaj Executive Committee ('01-'02)

Name	Designated Post	University
Binod Tiwari	President	Niigata University
Hem Nath Ghimire	Vice-President (Hokkaido)	Hokkaido University
Shankar Man Shrestha	Vice-President (Honshu)	University of Electro-Communication
Krishna Raj Pathak	Vice-President (Shikoku)	Ehime University
Prem Prasad Poudel	Vice-President (Kyushu)	Kyushu University
Akhilesh Kumar Karn	Executive-Secretary	Tokyo University of Agriculture & Tech
Chhabi Lal Sharma Rizal	Joint-Secretary	Muroran Institute of Technology
Subarna Lata Tuladhar	Treasurer	Saitama University
Sunil Kumar Karn	Executive Member	Nagaoka University of Technology
Kumar Basnet	Executive Member	Sophia University
Rupak Kumar Aryal	Executive Member	University of Tokyo
Nava Raj Adhikari	Executive Member	Ehime University
Madan Tandukar	Executive Member	Nagaoka University of Technology

2nd Nesaj Executive Committee ('99-'01)

Name	Designated Post	University
Shobhakar Dhakal	President (Apr. '99 - May '00)	University of Tokyo
Pramod Aryal	President (Jul. '00 - Mar. '01)	Kinki University
Ganesh Prasad Dhakal	Vice-President (Hokkaido)	Hokkaido University
Deepak Aryal	Vice-President (Honshu)	Nagoya University
Kishor Kumar Bhattarai	Vice-President (Shikoku)	Ehime University
Bim Prasad Shrestha	Vice-President (Kyushu)	Miyazaki University
Netra Prasad Bhandari	Executive-Secretary	Ehime University
Binod Tiwari	Joint-Secretary (Apr. '99 - Jun '00)	Niigata University
Sunil Kumar Karna	Joint-Secretary (Aug '00 - Mar. '01)	Nagoya University of Technology
Sangeeta Baral (Basnet)	Treasurer	
Sunil Khandelwal	Executive Member	Tokyo Institute of Technology
Dinesh Manandhar	Executive Member	The University of Tokyo
Chandi Subedi	Executive Member	Chiba University
Jugal Bhurtel	Executive Member	Yamaguchi University
Phatta Bahadur Thapa	Executive Member	The University of Tokyo
Sushil Kumar Chaudhary	Executive Member	Tokyo Institute of Technology
Yuba Raj Bhusal	Executive Member	Hiroshima University
Jagannath Joshi	Executive Member (Apr. 99 - Jun '00)	

1st Nesaj Executive Committee ('97-'99)

Name	Designated Post	University
Surya Raj Acharya	President	The University of Tokyo
Lalu Prasad Paudel	Vice-President (Hokkaido)	Hokkido University
Balral K. Bhatta	Vice-President (Honshu)	Kyoto University
Bishnu Prasad Dhakal	Vice-President (Shikoku)	Ehime University
Dr. Basu Dev Pandey	Vice-President (Kyushu)	Nagasaki University
Tara Nidhi Bhattarai	Executive-Secretary	Kyushu University
Pramod Aryal	Joint-Secretary	Osaka University
Usha Sharma	Treasurer	The University of Tokyo
Bhooshan Raj Neupane	Executive Member	Kansai University
Bhuwneshwar Prasad Shah	Executive Member	The University of Tokyo
Binod Tiwari	Executive Member	Niigata University
Kishore Joshi	Executive Member	Keio University
Laxman Sunuwar	Executive Member	Nagoya University
Ngima Gyalgan Lama	Executive Member	Kyushu University
Dr.Rohit Pokharel	Executive Member	Kobe University
Krishna M. Neupane	Executive Member(Later resigned)	

Guide lines for the author

NESAJ would like to request you to contribute your literary works (essays, poems, travel diaries, etc) and other valuable articles (research articles, scientific reviews, etc) to publish in “Nesaj Patra”. Here are the guide lines you are requested to follow while writing and submitting your works to publish in NESAJ Patra.

1. Articles should be in one of the following languages: Nepali, English, and Japanese.
2. Since NESAJ is a non-political student organization, articles to be published in NESAJ Patra should not have any political intentions (Articles written in the interest of Political Parties of Nepal are especially strictly prohibited.).
3. Articles should not have any contents that would cause breach of peace and harmony among Nepalese population, let alone NESAJ members. Personal harassing and sarcasm contents are prohibited.
4. Articles with personal business interests are prohibited. NESAJ patra will have advertisement space for advertisements that will be collected to support NESAJ Patra financially. Free advertising through article contents will not be tolerable.
5. Writers are encouraged to write only one article in one language; however, you are eligible to submit as many different works as you want.
6. A) Writers are encouraged to submit articles (essay, travel diary, short story, research article, etc.) on an A4 size format. Articles should not exceed a maximum number of 4 pages with a 12 pt font.
B) Writers are also encouraged to contribute short poems, "muktaks", jokes, etc and are requested to make them as short as possible.
C) Editorial Board may change the font and page format if necessary.
7. The Editorial Board will decide on NESAJ Patra "Cover Design."
8. Article contributors are requested to send their articles to a particular email assigned by the Publication Committee. NESAJ Patra Coordinator will finally collect all the articles and send to Chief Editor.
9. A) Nesaj Patra publication committee will assign editors to proof-check the articles, correct them if found necessary, and delete any contents that the editors find malicious thus profane.
B) Nesaj Patra publication committee may select and choose not to publish some eligible articles in case it receives too many articles.
C) The Editorial Board holds the sole authority to the publication of articles. The Chief Editor has the right to the final decision.
10. The Chief Editor will inform the Coordinator about the progress and status of the publication and the Coordinator in turn to the Excom. The publication committee will make necessary announcements via Nesaj common mail.