Vol 16 June, 2016 No. 1

Editorial

My Food My Medicine

There is a famous saying: "Man is what he eats". To be healthy, we need healthy food with a balance of proteins, carbohydrates, different phytochemicals and minerals. Food is directly related to the health of people, society and nation as a whole. Food should be safe at the time of consumption, and should not be injurious to health of the consumer. Food which is nutritionally balanced may or may not be safe because it may be contaminated by natural toxins, synthetic chemicals such as fertilizers, insecticides, additives, antibiotics, growth hormones and biological contaminants as molds, virus and bacteria. These contaminants have posed severe health hazards. Many communicable diseases are transmitted through food and many non communicable diseases, including cancers, are associated with chemicals and toxins in the food supply. This existing burden will be compounded by the effect of climate change, which is likely to increase the incidence of food borne diseases.Many techniques have been introduced in food production, processing, storage, distribution and consumption. Our food and food habits have also mutated over the years. We are increasingly eating more processed foods. Our supermarket is full of conveniently packaged foods that appeal to our taste buds but compromise our nutrition, because most of the natural nutrients of food are removed in the refining process. Fast foods also remove us from the pleasures of creating and savoring a wonderful meal and the fast pace often prevents us from connecting over a healthy and fresh meal. We are prioritizing convenience over health. We should pay attention on what we eat and how we eat. Special attention is needed when we are sick so that we can help our bodies get the nutrients we need to heal. All types of food articles (fruits and vegetables, cereals and legumes, milk and milk products, spices and condiments and safe drinking water etc) have their own importance when it comes to healing and curing one's heath, and sustaining it. In this issue we will talk about how a few medicinal plants can help us realize this property of safe and balanced foods. There are many benefits if we look food as medicine. We also look into the other side of the coin to discover how our foods are converted to toxin due to ignorance.

Quality Standard Exportable Medicinal Plants Production and Distribution

Ms Padma Vaidya, General Secretary, WIST



WIST executive members on work under the shade house of Cinnamomum tamala (Tejpat) nursery

Medicinal plants are the major sources of house hold use and economy of Nepal. Women in Science and Technology (WIST) completed the project on "Quality standard exportable medicinal plants production and distribution" in the fiscal year 2072/073 B.S. An agreement was done between Department of Plant Resources (DPR) and Women in Science and Technology (WIST) in December. This project was implemented from the month of December 2015 and completed in July2016 Ms. Padma Vaidya, General Secretary of WIST, coordinated this project from the start to the completion. The site for nursery preparation was selected in Pingalasthan ward no 8, which belongs to the coordinator. The area is about 1200 sq.ft. To exploit and maintain increasing national and international market demand the government of Nepal has the policy to increase the quality of raw material productions with scientific technology which enables the farmers, private sectors, local people and make them easy availability of the plants for income generation The main purpose of the selection of site in Kathmandu is to raise the awareness of the medicinal plants cultivation and it's technical knowledge to the centrally located people..

The Department of plant resources (DPR) provided four different types of quality standard exportable plant seeds to Women in Science and Technology (WIST). These seeds are1. cinnamomum tamala (Tejpat), 2. Swertia chirayita (Chiraito), 3. Asparagus racemosii (Kurilo), 4. Sapindus mucorosis (Riththa). Cultivation management is carried out according to the site selection, land preparation, seeds sowing, irrigation, fertilizers, weeding and shading. The financial support was provided by the Department of Plant Resources with the technical support, supervision and frequent monitoring of the field (Nursery) by the experts from DPR. They had provided valuable suggest ions and technical know how and also monitored the nursery with frequent field visits. WIST Eexecutive Board made coordination in the cultivation management.

Uses of the medicinal plants cultivated:Tejpat: Bark (Dalchini) and leaves (Tejpat) are used in curries , meat , vegetables, pickles. Medicinally they are also

Page: 1

used as aromatic, astringent, stimulant, carminative, and for checking nausea and diarrhea. Chiraita: Medicinally it is used for fever, wounds, pimples and as an appetizer and taste. It is also used for the growth of the hair. It has high market in the beer and alcohol industry. Kurilo: The roots are good for eye, heart diseases, stomach ache, blood diseases and cough. Riththa: The fruit is the main part for different uses. They are used for soap, shampoo, detergents, poisonous chemical for fish.

Acknowledgement: WIST acknowledges Department of Plant Resources for providing financial and technical support for the project, and wishes such opportunity in the days ahead.

Poly bags preparation by WIST members



Introducing the Women Scientists of Nepal and their views



Ms Matina Joshi Vaidya

Address: Mahalaxmisthan, Lalitpur sub-metropolitancity-5, Bagmati zone, Nepal.

Present Status: Deputy Director General (DDG) in Department of Food Technology and Quality Control (DFTQC), Babarmahal since 2015 March.

Academic record: PhD (Food Science), University of Ballarat, VIC, Australia; MSc in Food Science and Technology, Ghent University, Belgium; B.Tech., Central Technology Campus, TU, Dharan.

Experience: Ms Vaidya has joined DFTQC in 1995 as a Food Research Officer (FRO) and had worked in Reference Laboratory of department for about 5 years. Then she worked in food processing and research areas for about one decade. There, she was actively involved in research and development and training, as well as publication of books. She was promoted to Sr. FRO in 2010

Currently, she is working as a chief of Quality control program of department since 2014 after being promoted to Class I officer. Her major duties include planning, budgeting and monitoring of the quality control programs. Under Quality control division programs include: food standard draft preparation, issue/renewal of food industry license, inspection of food industries, food import permit and market surveillance as well as conducting consumer awareness program.

She has published number of papers in national and International Journals and has presented papers in conferences. She has won two prizes for the best conference paper award in Conference in University of Ballarat, Australia. In 2013, she has got UBPA publication award for her PhD thesis.

Membership: life member of professional organizations: WIST, NEFOSTA, NADAN and ANNA.

View on WIST: In her opinion, main contribution of WIST is to bring all female professionals engaged in science, technology and engineering together in single forum. Since its establishment, WIST has helped to create a strong community with common interest and helped in building network. WIST recognized the role of women scientists and technologist's contribution made by them. She thinks that WIST need to reach future female professionals in this area by providing a student membership. This will help to network female science and engineering students with professionals as well as foster a supportive environment for them. WIST must take initiative as a pressure group in urging government to promote the education of female in Science and technology and create suitable environment to retain in this field.

Editorial Staff:

Ms. U. Joshi, Ms. Sandhya Karmacharya, Ms. Padma Vaidya, MS. Kul Shobha Shakya. All enquiries & Information solicited to WIST Secretariat, Kathmandu. Tel: 5554842, 9841292101, Email:info@wist.com.np

Website: www.wist.com.np

Page: 2

Ms Roshana Shakya

Address: House No. 49, ward No 23, Ombahal tole Kathmandu-3 Nepal. Tel No.: 977-1-4226884®, 1-4266567

Mobile: 9841200566.

E-mail: roshanashak@gmail.com Present status: Free Lancer (Water, Sanitation and environment)

Academic Record:

- a) M.S. in Envionmental engineer ing Science with thesis on Environmental Quality Assessment in Water Resources and ngineering" from Hohai University, P. R. CHINA (Septem er 1998 to December 2000).
- b) Post graduation in "Water Quality Management" from H.E. (International Institute for Hydraulic and Environ ental Engineering). Delft, The Netherlands. (September 1991 to September 1992)
- M.Sc. in Chemistry (Organic) from Tribhuvan University in 1975

Further studies:

Advanced International Training on Integrated Water resources Management in Sweden and in South Africa, 2005; Attended a short term Refresher course on "Environment Impact Assessment" in 1997, in New Delhi and Training program on Drinking Water Monitoring and Surveillance jointly organized by DWSS and World Health Organization (WHO), January 1998.

Experience:

- Lecturer in institute of Medicine (Teaching Hospital)
 Teaching Chemistry as Pre-requisite Course for the Students of M.B.B.S, Radiologists and Pharmacist from 1976-1978.
- Worked as a Chemist (Graduated officer) in "Nepal Institute of Standard" Preparing Standard Documents for various items from 1978-1980Working as a Chief (Water quality Manager) of Research, water quality surveillance and control section of Nepal Water Supply Corporation from June 1986 to 27th Oct. 2010. As a chief of Research and Water Quality Unit in that Organization, was responsible for the surveillance and Water Quality Control of the Treatment Plants, Service Reservoirs, Ground and Surface Water Sources and Distribution System in 35 Municipalities all Over the Country.

Seminar Paper Presentation and Participation

Participated as participant, coordinator and paper presenter in a number of workshops abroad and home,

Affiliations:

- Committee Member of National Arsenic steering committee under Ministry of Physical planning and works (MPPW)
- active member of working committee of National water quality standard organized under Nepal Institute of stan dard.
- General Secretary: and life member -Katmandu Business and Professional Women (KBPW) of FBPW (Federation for Business and Professional Women Nepal).
- 4. Founder President: ENAPHC (Environment and Public



Health)

- 5. Executive Member: and Life member- WIST (Women In Science and Technology)
- 6. Life member; Nepal Chemical Society

Publications (Articles):

A number of articles were published in local magazines, in journals and in seminars

Views:

Different scientific and technological achievements have made our life easier and healthier. But the people here in Nepal are facing many difficulties, like breathing polluted air, facing water crunch and to survive with adulterated and intoxicated essential food. So WIST can tap each and every talent of women scientists to fuel changes in society for air, water and food security, which is also primary right of the people to live. Thus the role of women scientists and technologists are very important for the welfare of men and women and the development of nation.

खाद्यान्न बालीमा दुसीजन्य विष अफ्लाटविसनको संक्रमण

खाद्यान्न बाली तथा बिभिन्न खाद्य पदार्थहरु ओसिलो भयो भने त्यसमा दुसी लाग्न सक्छ। सबै दूसी हानिकारक हदैन तर एसपर जिलस फ्लेभस (Aspergillus flavus) र एसपरजिलस पारासिटीकस (Aspergillus parasiticus) नामक दुसी लाग्यो भने त्यस जातको केहि बिष उत्पन्न गर्न सक्ने प्रजातिहरुबाट अन्न बालीहरुमा अत्यन्तै घातक बिष उत्पन्न हुन सक्दछ, जसलाई अफ्लाटक्सिन (Aflatoxin) भनिन्छ । यो बिष मानव तथा पश पंक्षीहरुहरुको लागि अत्यन्तै घातक सिद्ध भएको छ । यसबाट खास गरि कलेजोको क्यान्सर र अन्य घातक रोगहरु हने गरेको पाइएको छ । Aflatoxin नामाकरण, Aspergillus genus बाट a र species flavus बाट fla र toxin को माने बिषादीको संयुक्त जोडाइबाट गरिएको हो।

अफ्लाटिक्सनबाट संक्रमित हुन सक्ने खाद्यान्न बाली तथा पशुजन्य खाद्य बस्तुहरूः

कृषि जन्य बालीहरु चामल, दाल, मकै, गहॅं, बाजरा, जौ, कोदो, बदाम, भटमास, सूर्यमुखी, कपासको बियाँ, नरिवल, काजु ओखर, पिस्ता, हाडे बदाम, कट्स, सिमी, गेडागडी, सुपारी, खोर्सानी, मरिच, धनिया, बेसार, अद्वा अदि । तर मकै र बदाम र यी बालीबाट बनाइएका खाद्य पदार्थहरु अफ्लाटक्सिन संक्रमणको लागि अतिनै सम्बे दनशील भेट्टाइएको छ । त्यस्तै सुपारी, नरि वल, कपासको बिउमा पनि यस विषको संक्रमण धेरै न पाइएको छ । पश्पंक्षीलाई खुवाइने दाना पदार्थहरुमा मकै, बदामको पिना, कपासको बिउ नरिवलको पिना आदि मुख्य कच्चा पदार्थको रुपमा प्रयोग गरि न्छ, त्यसकारण दाना पदार्थहरुमा पनि अफ् लाटक्सिनको संक्रमण गम्भीर समस्याको रुपमा पाइएको छ । नेपालमा पनि खाद्य प्रबिधि तथा गुण नियन्त्रण बिभागको अध्ययन, सर्भेक्षणको नतिजा अनुसार मकै, बदाम र यिबाट बनाइएका खाद्य पदार्थहरू जस्तै, मकैको पिठो, च्याखला, स्न्याकको रुपमा प्रयोग गरिने बजारमा पाइने तारे को बदाम र दाना पदार्थहरु र यिमा कच्चा पदार्थको रूपमा प्रयोग गरिने मकै, बदामको पिना, कपासको बिउ, नरिवलको पिना आदिमा यो समस्या पाइएको छ।

अफ्लाटिक्सन बी १ र अफ्लाटिक्सन बी २ बाट संक्रमित दाना पदार्थ गाई, भैसी, बंगुर, हाँस, कुखुरालाई खुवाइयो भने यी अफ्लाटिक्सनहरुको केहि भाग ती पशुपंक्षीहरुको शरीरमा गई त्यहाँ अफ् लाटिक्सन एम १ र अफ्लाटिक्सिन एम २ मा परिवर्तन भइ ती पशुपंक्षीबाट उत्पादन हुने पशुजन्य खाद्य पदार्थ द्ध, अन्डामा पनि आउन सक्ने र मासुमा पनि रही रहन सक्छ र पिसाबमा पनि आउन सक्छ । बयस्क भन्दा बच्चाहरुलाई यो बिषादीले बढी असर गर्दछ।

अफलाटक्सिन बी १ को तलनामा अफ लाटक्सिन एम १ कम क्यान्सर गराउने यानी कम घातक हन्छ । सडान, घाना, के न्या र चिनको ग्यांगी प्रान्त, यएइ, टकी, अस्टेलिया र थाइलैंडमा आमाको द्ध र र गतमा पनि अफलाटिक्सन एम १ फेला परे को छ। चिज, दिह, पाउडर द्ध र द्धबाट बनाइने अरु परिकारमा पनि अफुलाटक्सिन एम पाउन सिकन्छ । दूध, अन्डा, मासमा अफलाटक्सिन आउनको लागि दाना पदार्थमा अफलाटक्सिनको मात्रा अलि बढिनै मात्रामा हन पर्दछ तथापी कम मात्रामा मात्र अफ् लाटक्सिन भएको दाना पदार्थ लगातार धेरै दिनसम्म सेवन भएमा त्यसबाट पशुपंक्षीमा नकारात्मक प्रभाव पारी अन्तमा पशुपंक्षी मर्न सक्दछ । संक्रमित दाना पदार्थको से वनबाट द्ध, अन्डाको उत्पादनमा समेत कमी आउन सक्दछ।

अफ्लाटविसन उत्पादन गर्ने दुसी तथा बिष उत्पन्न हुने उपयुक्त ठाउँ तथा मौसमः

एसपरजिलस फ्लेभस तथा एसपरजिलस पारासिटीकस दूसीका बिष उत्पन्न गर्न सक्ने बिषालु दूसीहरु खेतको माटोमा सडेर, गलेर जाने बस्तुहरुमा र वातावरणमा त्यसै फिजिएर बसेको हुन्छ र उपयुक्त तापक्रम, चिसान र सापेक्षिक आद्रता पाउने बितिक धेरै जसो खाद्य बस्तुमा आक्रमण गर्न बिष उत्पन्न गर्न सक्दछ। खाद्य बस्तुमा दूसी पर्न र त्यसबाट अफ्लाटिक्सन बिष उत्पन्न खास गरि (क) चिसान प्रतिशतको उपलब्धता (खाद्य बस्तुको जलाम्स प्रतिशत) (ख) वायुमण्डलको तापक्रम (ग) वायुमण्डलको सापेक्षिक आद्रता (घ) अक्सिजनको उपलब्धतामा निर्भर गर्दछ। गरम मुलुक अफ्लातिक्सन संक्रमण को बढी सम्बेदनशील पाइएको छ।

संज्ञमण कहिले हुन्छ:

खाद्यान्न बालीमा दूसी खेतमै बाली काट्न छ पहिला नै दूसी लागे बिष उत्पन्न भईसके पिछ दूसी भरेर गईसकेको हुन सक्दछन्। तर पिन साधारणतया अनुसन्धानको क्रममा राम्रो पोटिलो, हृष्टपुष्ट, स्वस्थ अन्नको दानामा अफ्लाटिक्सन उत्पादन भएको पाइन्दैन र हेर्दे ख्याउटे, बिग्रेको, िकरा लागेको, द्वसी परेको, च्याउरे अन्नको दानामा धेरै जसो अफ्लाटिक्सनेको संक्रमण भएको पाइएको छ। एकचोटी बिषादीको संक्रमण भईसके पिछ त्यसलाई एकदम उच्च तापमानमा पकाउँदा वा पिसदा वा पिलेट आदि बनाउदा अथवा प्रशोधन गर्दा वा कुनै रसायनले पिन नष्ट गर्न गाऱ्हो हुन्छ।

अफलाटिक्सन स्वीकृत सुरक्षित माञाः

संसारको लगभग १०० देशहरुले विभिन्न खाद्यान्न बालीको लागि आ-आफनै सर क्षित मात्रा सिफारिस वा किटान नै गरे को छ । अन्तराष्ट्रिय मान्यता प्राप्त Codex Alimentarius Commission ले प्रशोधन गरि खाने बदाम, हाडे बदाम, पिस्ता, कट्स, छोडाएको ब्राजिल नट आदिको लागि १५ पा.प.बि. तोकेको छ । FDA ले मानव उपभो गको लागि प्रयोग हुने खाद्य बस्तुको लागि अफुलाटक्सिनको मात्रा २० पा.प.बि. (पार्टस पर बिलियन) प्रजनन योग्य पशु दानाको लागि १०० पा.प.बि. प्रजनन योग्य गाईको दानाको लागि २० पा.प.बि. र कुखुरको दाना पदार्थको लागि ३०० पा.प.बि. तोके को छ । नेपालमा पनि अन्नबालीको लागि अफुलाटिक्सन बी १ को मात्रा २० पा.प.बि. र द्धाल गाईको दाना पदार्थको लागि ५० पा.प.बि तोकेको छ।

बिषादिपना:

एकदमै बिषादी (Acute Toxicity) - अफ् लाटिक्सनको संक्रमण खाना अथवा दानामा अतिनै धेरै मात्रामा भएमा त्यो एकदमै बिषाल भएर मानिस पशुपंक्षी, माछा, आदि मर्न सक्दछ। अफ्लाटिक्सनको मात्रा (६०० पा.प.मि.) भएको खानाको सेवन एक दुई हप्ता मात्र भएमा पनि कलेजो नै खत्तम भई मृत्यु सम्म हनसक्छ (Groopman 1988)।

असाध्य बिषावी (Chronic Toxicity) लगातार धेरै विनसम्म थोरै थोरै मात्रामा
अफ्लाटिक्सनको मात्रा भएको खाना अथवा
बाना पदार्थको सेवनबाट हुने प्रभाव :- थोर
थोरै मात्रामा अफ्लाटिक्सन भएको दाना
पदार्थको सेवान लगातार धेरै विनसम्म
भई राखेमा (Chronic Toxicity) भई
पशुपंक्षीको कलेजोको क्यान्सर हुने, है
पाटाइटिस, जिन्डस, फोक्सोमा पानी जम्ने,
सन्तान उत्पादन शक्तिमा कमी आउने,

Page: 3

हुकंने बद्धने प्रक्रियामा अवरोध आउने, अरुचि हुने, द्ध तथा अन्डा दिनेमा कमी आउने र साथै रोग प्रतिरोधात्मक शक्तिमा कमी आइ अन्य रोगले पनि आक्रमण गर्न सक्दछ । अफ्लाटिक्सिनले खास गरि कले जोलाई नै घात पुर्याउँदछ तर पनि अफ् लाटिक्सिनको संक्रमणबाट मरेकाहरुको फो क्सो, मृगौला, मस्तिष्क, मुटुमा पनि अफ् लाटिक्सिनको मात्रा धेरै ने भेट्टाइएको छ । बिषादीपनाको असर उमेर जात पो षण स्थितिमा भर पर्दछ र बच्चाहरु र गर्भवतीलाई बढी असर गर्दछ । खाद्यान्न बालीमा अफलाटविसन संज्ञमणको रोकथाम र यसबाट बचावटका केहि उपायः

संक्रमणको रोकथामको लागि कृषि प्रणालीमा राम्रो उपायहरू (Good Agricultural Practices) जस्तैः द्वसी तथा किरा संग लड्न सक्ने शक्ति भएको बिउ रो प्ने, आवश्यक समयमा सिचाई गर्ने, बाली राम्रो पाकिसकेपछि मात्र अन्न बालीमा चोट नलगाई बाली कटानी गरि छिटो भन्दा छिटो राम्रो सुक्ने गरि सुकाई हावादारी, सुकिलो र चिसो लाग्नबाट बचावट गरि

थन्क्याउने गर्ने । घुन किरा, फटेडग्रा, मुसा आदिको रोकथाम गर्ने, दूसी मार्न सुरक्षित दूसी नासक र किरा, फटेडग्रा, मुसा आदि मार्न सुरक्षित किटनासकको प्रयोग गर्ने । UV Light मा अफ्लाटिक्सन संक्रमित अन्न बालीका गेडाले नीलो रंगको प्रकाश जसको सहायताले दूसिपरेको अफ्लाटिक्सन संक्रमित भएका निकालेर फाल्न सिकन्छ ।

संध्या कर्माचार्य

उपाध्यक्ष.

बिज्ञान तथा प्रविधिमा महिला, नेपाल

WIST Activities

- One day training on Food Processing was conducted on Bhadra 18, 2072 by Mrs. Chandra Shakya
- Dr. Babita Poudel delivered talk program on "Natural Product Research on Plant and Microoganism" on Magh 2, 2072 at Department of Food Technology and Quality Control (DFTQC)
- 3. Statute Amended
 - a. Established in 2049 B.S. in place of 2048
 - b. Membership Fee revised Entrance – Rs. 100/-General Member – Rs. 300/-Associate Member- Rs 500/-Life Member – Rs. 3,000/-
 - Fiscal year regarded as the working year ie Shrawan
 Ashar 32.

4. Publications

- a. Publication of newsletter
- Mrs. Urmila Joshi published article for the consumers on food safety.
- Mrs. Sandhya Karmacharya published articles on food coloring and on aflatoxin.

5. Seminar Attended

- a. Mrs Padma Vaidya attended Science Day function on Ashwin 1, 2072 organised by Ministry of Science and Technology, General Secretary and also attended 55th Annual Day and 16th Plant Resourc Day on Chaitra 29,2072, oganised by Department of Plant Resources and volunteered for 3 months (December 6 2015- February 22, 2016) with Italian expert on wall painting of Swayambhu Santipur destroyed by the earthquake on Baisakh 12,2072
- b. Mrs. Urmila Johi and Mrs. Sandhya Karmachrya presented papers on "Food Safety Issues in Nepal" and "Alfatoxin Contamination in Food Commodities "respectively in workshop organized by Nepal German Academic Association (NEGAAS) on May 8-10, 2016.

6. Project Works:

A project on "Exportable Quality Standards Medicinal Plants-Production and Distribution" was conducted by WIST with the financial and technical support of the Department of Plant Resources, Thapathali in this year 2072/73.

Congratulation:

WIST congratulates Dr. Matina Joshi for her appointment as Deputy Director General at Department of Food Technology and Quality Control, Babar Mahal and Mrs. Pramoda Pradhan for her promotion to Gazetted First Class Officer at Department of Mine and Geology, Lainchor

Annual General Meeting:

21st Annual General Meeting of WIST was held on Bhadra 5, 2072, in Department of Food Technology and Quality Control (DFTOC) hall. The meeting was chaired by Ms Urmila Joshi, President WIST. Chief Guest Ms Riddhibaba Pradhan, Ex Minister of Women, Children and Social Welfare, Government of Nepal gave remarkable speech for the welfare of the womanhood by applying the technical knowledge acquired by the women scientists and technologists. Ms Debaki Shrestha Vice-President gave welcome speech followed by progress report from Ms Sandhya Karmacharya, General Secretary and audit report from MS Chandra Shakye, Treasurer. Dr Keshari Laxmi Manandhar Ex President WIST and advisor in her speech gave suggestions to make the association dynamic. The meeting was ended with concluding remarks, the program to be carried out in the days ahead and also vote of thanks by the president Ms Urmila Joshi.

New Executive Committee

A new executive committee was formed according to WIST regulations in the second session of annual general meeting. Mrs. Urmila Joshi was re-elected as President, Mrs. Sandhya Karmacharya as Vice President, Mrs. Padma Vaidya as General Secretary, Mrs. Rama Shrestha as Joint Secretary, Mrs. Chandra Shakya as Treasurer, Mrs. Sushma Upadhyay, Mrs. Roshani Shrestha and Ms. Roshana Shakya as members of Executive Committee. Mrs. Sangeeta Swar, Mrs. Kul Shobha Shakya and Mrs. Kalpana Dhakal were elected as new members of the Executive Committee. Dr. Prof. Suman Subedi Bhattarai was election commissioner on the occasion.

EXECUTIVE COMMITTEE MEMBERS

President

Ms Urmila Joshi 9841292101 joshi_urmila@yahoo.com

Vice-President Ms Sandhya Karmacharya 9818858802

sandhyabechu@hotmail.com General Secretary

Ms Padma Vaidya 9849263815 padmavaidya2005@yahoo.com

Joint Secretary Ms Rama Shrestha 9841202364 rama.shrestha2012@gmail.com Treasurer

Ms Chandra Shakya 9841509925 Chandrashakya2006@yahoo.com

Members Ms Roshani Shrestha 9841272571 roshnejaha@gmail.com

Ms Sushma Upadhyay 9841343371 sushmadpupadhyay@gmail.com Ms Roshana Shakya 9841200566 roshanashak@gmail.com

Ms Kul Shobha Shakya 9843108607 kulshobhashakya@gmail.com

Ms Sangita Swaç 9841380511 swar.dof@gmail.com

Ms Kalpana Sharma Dhakal 9849805424 kalpanasharmadhakal@gmail.com Advisors

Dr. Keshari Laxmi Manandhar 9841256027 pkmn@wlink.com.np

Ms Ram Badan Pradhan O14416765(Residence phone) satrughan pradhan@gmail.com

Dr.Surya Laxmi Maskey 9803147255 suryamaskey64@hotmail.com

Page: 4