

# “Snake and First-aid to Snakebite”

## A Fifteen Days Awareness Training Program



**Rural Madi Valley, Chitwan District, Central-South Lowland Nepal  
{Buffer Zone Office, Baghauda-3, Basantapur, Buffer Zone Office, Ayodyapuri-5,  
Kharkatta, Red Cross Office, Bagauda-3, Basantapur, Madi}**



**On**

**Tuesday 23 Oct. to Wednesday 31 Oct. and Monday 19 Nov. to Saturday 24 Nov. 2007**

Program Sponsor: America Nepal Medical Foundation (ANMF), Nepal

Program Organizer: Parasitological Research & Socio-Environmental Development (PARASED),  
Nepal

Program Co-organizer: Association for Nature Conservation and Social Upliftment (ANCSU), Nepal

**Report Prepared by: Mr. Deb Prasad Pandey\***

\* President, ANCSU-Nepal, Institutional Member, PARASED-Nepal, Lecturer in Zoology, Apex Academy, Bharatpur-2, Birendra M. Campus, Tribhuvan University, Bharatpur-10, Chitwan

## Program Report

The Awareness Training was **proposed** by **Mr. Deb Prasad Pandey**, Institutional Member, PARASED-Nepal; President, ANCSU- Nepal; Lecturer in Zoology, Apex Academy, Birendra M. Campus, Bharatpur, Chitwan and **Dr. Chhabi Lal Thapa**, Senior Medical Doctor, Dumkauli Health Center & Kali Gandaki Hospital, Nawalparasi District, Nepal; Life Member, ANCSU- Nepal in **May 31, 2007** and **approved** by America Nepal Medical Foundation in **September 23, 2007**. The **MoU** of donor and recipient was accomplished in Oct.15, 2007.



The **training has completed** successfully in **Nov.24, 2007**. The **follow up** study of the work will be held **after the six months** of the termination of the program to enumerate the effectiveness of the program.

**Mr. Deb Prasad Padney**- Trainer and Program Co-ordinator

**Dr. Chhabi Lal Thapa**- Trainer

**Mr. Ram Chandra Piya**- Assistant Trainer, Head -Dept. of Zoology, Birendra M. Campus, T.U.

**Report date:** Tuesday, Dec. 18, 2007

## **1. Background**

About 26 districts of the tropical terai and inner terai of Nepal are at full of risk of snakebite. From the currently ongoing research on Bharatpur Hospital, it was found that no victims followed the first aid recommended by WHO (**Pandey *et al.* 2007**). The majority of deaths in Chitwan and Nawalparasi district of lowland Nepal could be due to delay in admittance to a treatment center and the dependency of majority (56%) of people on traditional healers for treatment (**Pandey 2007**). The envenomed victims should arrive at hospital comfortably with pressure immobilization of bitten part with crape bandage and body as a whole as far as possible in order to avoid systemic absorption of venom (**Warrel 2005, Sutherland *et al.* 1979**). Hence, in order to better broadcast of the invaluable knowledge on WHO recommended First-aid to snakebite, Secondary, Lower Secondary and College students (most of from Red Cross Circle of the respective School/College) and farmers especially from farmers group {also from Ama Samuha (Women's group), Bachat Samuha (Saving Group), Buffer Zone Groups} were selected and trained.

## **2. Program Design**

A total of 180 participants (140 farmers, local healers, health workers, NGO representatives from four Village Development Committees (VDCs) + 40 school and college level students from the Red Cross Circle of respective School and College) were expected. From each VDCs 27 well read and write farmers from Farmers' Group (Kisan Samuha) +5 local healers+ 1 health worker (at health post/health center) + 2 representatives from local NGOs were invited. From some localities where literate farmers were not available, illiterate but leading farmers were selected.

The three days training packages for Bagauda, Gardi and Kalyanpur VDCs were held on Tuesday 23 Oct. to Wednesday 31 Oct. 2007 in Buffer Zone Office, Basantapur, Bagauda-3 that is almost center for the respective VDCs. Similarly, the training for Ayodyapuri VDC was held on Monday 19 Nov. to Wednesday 21 Nov. 2007 in Buffer Zone Office, Kharkatta, Ayodyapuri-5. The training for students from 11 educational institutions (1 College, 3 Secondary Schools, 7 Lower Secondary School) all over the Madi valley was conducted on Thursday 22 Nov. to Saturday 24 Nov. 2007 in Red Cross Office, Basantapur that is almost center for Madi valley.

The training was pictorial, visual, participatory and heuristic. The participants were familiarized with the museum specimens of snakes.

**Policy of change the attitude and traditional knowledge:** We invited prominent and famous local healers as guest and on the spot we requested them to have training for whole three days. So, these healers remained as Guest cum trainee for the program. Initially they were encouraged and inspired to

express their activities and faith on traditional treatment of snakebite and other misconceptions on snakes for which we summoned on of the eldest/ most famous local healer to formal opening of the program. Later, we noted their experiences and practices. All the misconceptions and traditional practices were crystal cleared till last day of the program. Eventually, they promised to adopt the first-aid recommended by WHO.

**Notorious note:** For welcome function of five trainings, about 10 guests (from school, VDC, health post, political leaders) were invited. Most of those who arrived the hall denied leaving because of heart-touch program for the rural farmers and other people!!!

### 3. Participation

#### i. Total Participants

Particulars	Bagauda	Gardi	Kalyanpur	Ayodyapur	Students	Total
1 <sup>st</sup> day	44	32	44	43	45	208
2 <sup>nd</sup> day	45	31	42	40	42	200
3 <sup>rd</sup> day	45	30	42	40	41	198
<b>Total</b>	<b>134</b>	<b>93</b>	<b>128</b>	<b>123</b>	<b>128</b>	<b>606</b>

#### ii. Types of Participants

Particulars	Bagauda	Gardi	Kalyanpur	Ayodyapur	Students	Total
Local healers☼	7	4	6	3	-	20
Local NGos	1	-	-	2	-	3
Health workes	1	-	1	1	-	3
Veterinary Paramedic	1	-	-	-	-	1
Farmers	25	18	28	30	-	101
Students (*+☺)	-	-	-	-	37	37
<b>A.Total Direct Beneficiaries</b>	<b>35</b>	<b>22</b>	<b>35</b>	<b>36</b>	<b>37</b>	<b>165</b>
Guests	4	4	4	4	3	19
Volunteers	3	3	2	-	1	9 (3)
Program-manager & announcer	1	1	1	1	1	5 (1)
<b>B. Total Indirect Beneficiaries</b>	<b>8</b>	<b>8</b>	<b>7</b>	<b>5</b>	<b>5</b>	<b>33 (23)</b>
<b>C. Trainer</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>12 (3)</b>
<b>A+B+C</b>	<b>45</b>	<b>33</b>	<b>45</b>	<b>43</b>	<b>44</b>	<b>210</b>

Note: 1. ☼ Gurau, Dhami, Lama, Phukphake represents local healers; 2. \* is College students= 6; + is Secondary Level students= 15; ☺ is Lower Secondary Level students = 16; 3. the figures in small bracket represent the real number of individuals who repeatedly assisted/conducted the five training programs.

Out of total 188 individuals (local healers, farmers, health workers, students etc.) of rural Madi (includes 4 VDCs), Chitwan district, 165 individuals were direct beneficiaries and 23 individuals were indirect beneficiaries. Three trainers run the programs.

#### 4. Activities of the Program

**In 1<sup>st</sup> day,** (Identification of Venomous snakes, Superstitions on snakes and snakebite treatment, Conservation of snakes)

**10:00 – 10:30 Registration, Badge & File (stationery) distribution**



Volunteers (Shashidhar Baral and Mamata Pandey) has Registered and provided badges and file to trainee at Bagauda VDC program

Students after Registration: Journalist- Surya Pathak and Campus Chief- Badri Adhikari in front line

**10:30 – 10:40 Announcer introduces all the participants what the overall three days programs for**



Program Manager- Nava Pandey announcing the introduction of overall program for 3 days

10:40 – 10: 50

Chairing the guests – led by announcer



Local healers (Gurau from Tharu ethnic group) in Guest’s Chair Guest together with other guests

10:50 – 10: 55

Inauguration of the program



The eldest Gurau- Khoni Mahato unveiling the deadly snakes’ photos in Bagauda VDC program



The oldest women trainee opening the Gardi VDC program



Unveiling the specimens of Krait and Cobra (from right) by the eldest local healer- Bala Ram Subedi to inaugurate the Kalyanpur VDC program; Dr. C.L. Thapa (Trainer) and Shashidhar Baral (Volunteer) aside



The famous snakebite healer- Babu Ram Adhikari (big) showing deadly Common Krait photo after the inauguration of Ayodyapuri VDC program



Badri Nath Adhikari- Chief of Madi Campus showing deadly venomous Cobra (right hand) and Common Krait specimens after unveiling them in inauguration of students program

In VDC-wise farmers program, we invited local healers as a GUEST along with some other respectable figures of the VDCs in order to encourage the participation of local healers and discourage their unscientific healing respectfully. So, we inaugurated the program from local healer except in Gardi VDC program where local healer invited arrived late. Hence, the Gardi VDC program was inaugurated by the eldest women participants (to encourage the role of women in society). The program of students from all over the Madi was inaugurated by Chief of Madi Campus.

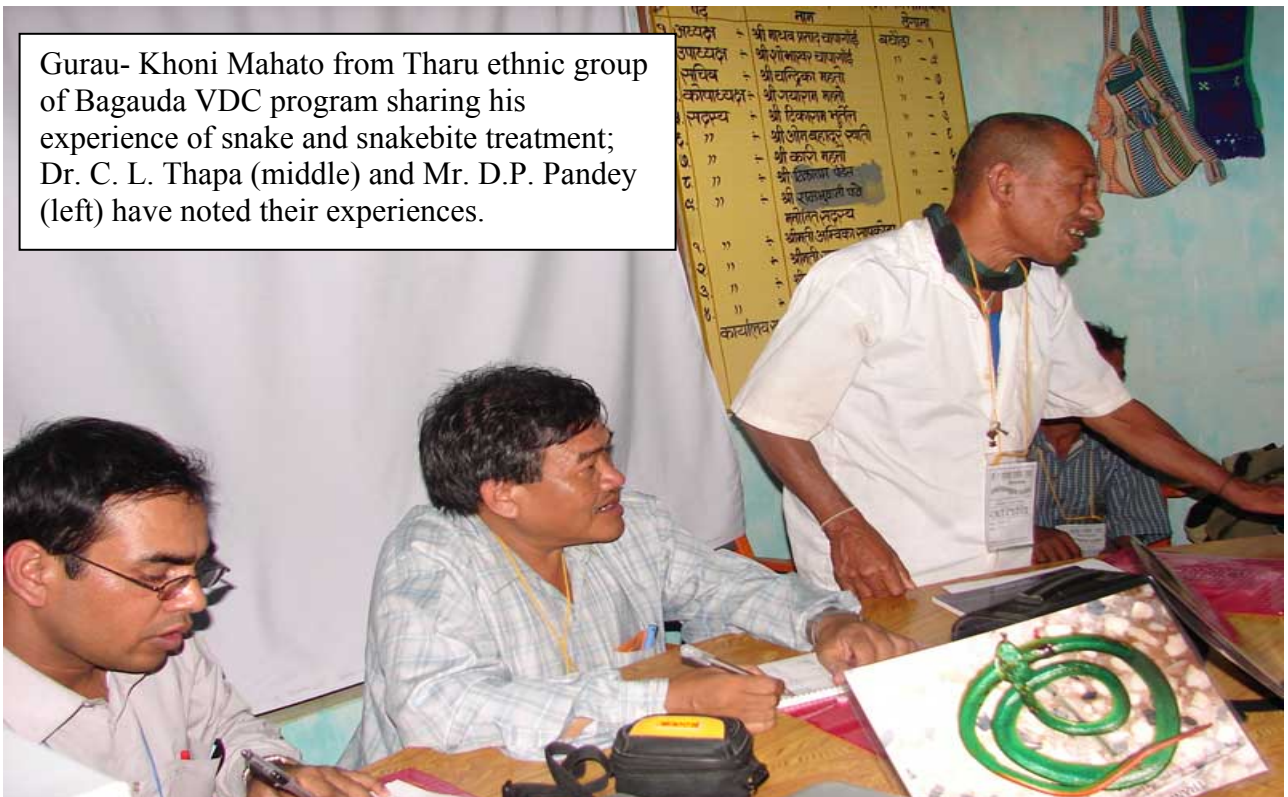
**10:55 – 11:05 – Introduction of trainee, trainers, guests, volunteers, program manager and announcer - led by Nava Pandey- the announcer and program manager**

**11:05 – 11:10- Welcome speech, introducing the information and importance of the program**  
 - led by Deb Prasad Pandey- the trainer and program co-ordinator



Deb Prasad Pandey- trainer and program co-ordinator giving welcome speech, Kavanpur VDC program

**11:10 – 12:00 - Experiences of the local healers, farmers and students in regard to snakebite treatment and Snakes** - led by Nava Pandey- the announcer and program manager



Gurau- Khoni Mahato from Tharu ethnic group of Bagauda VDC program sharing his experience of snake and snakebite treatment; Dr. C. L. Thapa (middle) and Mr. D.P. Pandey (left) have noted their experiences.





Gurau at Bagauda program sharing his experiences of snakebite treatment enthusiastically; next day, same gurau has shown the **snake stone** (Garud Dhunga or Jagmohar) by which he used to draw out the venom from site of snakebite!!!



At Kalyanpur VDC program, Phukphake (local healer) - Mukti Ram Bhattari telling a real story of his wife who was cured by famous local snakebite healer (lama, dhami) even after her referral to Bharatpur Hospital by Basantapur Health Center. He remarked that he was compelled to treat with other famous snakebite healer because of flooding at Rewa and Rapti River (at either side to Chitwan National Park). It is a pity! There is no bridge at Rewa River still now.



The famous snakebite healer- Babu Ram Adhikari (Big) telling his history of snakebite treatment and his claim of success! at Ayodyapuri VDC program



Ram Jayoti Neupane-a farmer from Ayodyapuri - 6 telling his own treatment by cutting snakebite site by blade himself!!!! How fearless he was!



Binita Shrestha- a student from Madi Campus reporting the recent two deaths due to snakebite in her own localities at Gardi VDC. So, she was highly enthusiastic to learn about snakes!

Bhagawati Tiwari-health worker of Health Center, Basantapur- **“We have neither proper training nor enough antivenom”**



12:00 – 12:30

Refreshment with tea and Cookies, and socialization by informal talking



Hotel owner and Program manager providing tea and cookies

12:30 – 13:00

General Information of Snakes – by Deb Prasad Pandey

13:00 – 13:10

Discussion

13:10 – 13:30

Snakes diversity in Nepal – by Ram Chandra Piya / Deb Prasad Pandey



Ram Chandra Piya, Head of Zoology Dpt., Birendra M. Campus, T.U. enumerating the species diversity of snakes in Nepal in front of Gardi and Kalyanpur VDC farmers

13:30 – 13:40

Discussion

13:40 – 14:10

**How to identify venomous snakes? (Theory)**

- led by Deb Prasad Pandey/ R.C. Piya



D.P. Pandey-demonstrating Gardi farmers the location and number of loreal scales- the identifying features of venomous snakes



D.P. Pandey teaching students about ventral scales- the identifying features of venomous snakes



D.P. Pandey teaching students about hexagonal middorsal scales' line - the identifying features of Kraits



14:10 – 14:20

**Discussion**

14:20 – 14:50

**Superstitions of snakes and snakebite treatment system in Nepal and other countries -by Dr. Chhabi Lal Thapa**



Dr. C.L. Thapa clarifying the superstitious concepts among farmers and students groups

**14:50 – 15:00          Discussion**

**15:00 – 15:30          Lunch and Tea**



Bagauda farmers having Lunch



Student participants relished lunch with their colleague

**15:30 – 16:00          Observation of museum specimens of venomous and non-venomous snakes outside the venue (Practical)- led by Deb Prasad Pandey**



Deb Prasad Pandey demonstrating the venomous and non-venomous snake specimens to Bagauda VDC farmers; also, pinpointing the venomous features of snakes with specimens on hand.



Gardi Farmers are observing the venomous and non-venomous snakes and their features. One female farmer (rightmost photo) pinpointing the fang marks!



D.P. Pandey giving demo to understand Kalyanpur VDC farmers the venomous snakes; the farmers are paying their attention!



Avodhvanuri farmers keenly observing the snakes demonstrated by D P Pandey



D.P. Pandey demonstrating the snakes to enable the students to identify venomous snakes

16:00 – 16:30

**Group learns group- the method of identification of venomous snake and venomous Snakebite (heuristic method of teaching!). Also, evaluation of the best performer**



Bagauda farmer pointing position of loreal scale- the distinguishing feature of venomous snake



Gardi farmers learning and pointing the position of loreal scale- the distinguishing feature of venomous snake- (Gurau with cheque shirt in middle)



Gardi farmer teaching others how to know venomous snake



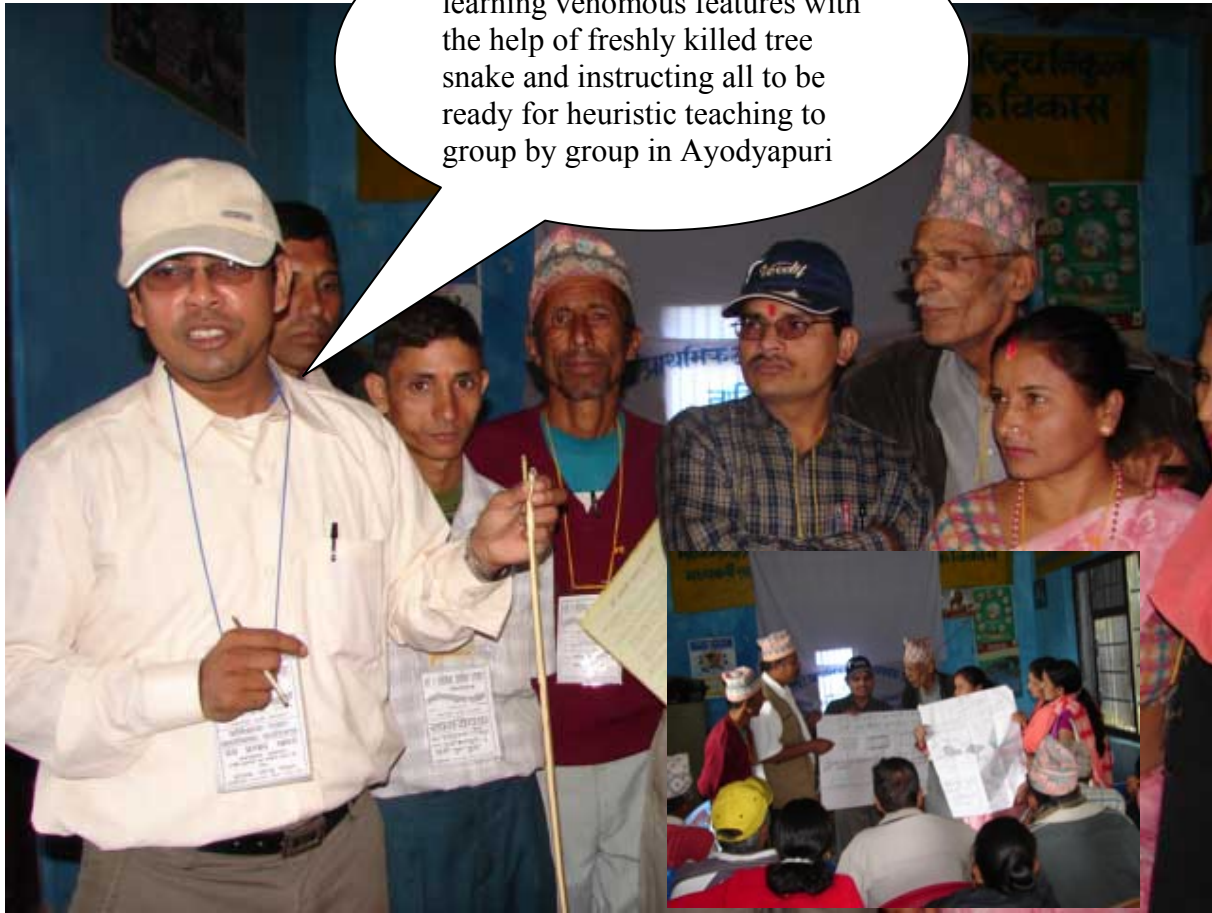
Kalyanpur farmers enumerating the distinguishing feature of venomous snake with the help of rubber snake sample, cardboard



Kalyanpur farmers (aside photos) teaching to distinguish venomous snake with the help of rubber snake sample, cardboard etc.



The trainer- D.P. Pandey learning venomous features with the help of freshly killed tree snake and instructing all to be ready for heuristic teaching to group by group in Ayodyapuri



Ayodyapuri farmers enumerating and teaching the distinguishing features of venomous snakes

Students' group discussion for heuristic teaching!





Different students groups involved in heuristic teaching  
Note: It was found that students learnt the matter quickly and clearly than farmers.

16:30 – 16:50

Why and How do we conserve the snakes? – by Deb Prasad Pandey



Deb Prasad Pandey- learning farmers and students “why and how to conserve snakes”

16:50 – 17:00

**Discussion and Instruction to write any five distinguishing features of venomous snakes (homework)**

**In 2<sup>nd</sup> day,**

(First-aid and safety measures to snakebite, simulation of snakebite and treatment)

10:00 – 10:20

**Registration (i.e. daily attendance)**

10:20 – 10:40

**Homework collection and Re-evaluation of the subject matters learnt yesterday**  
- Led by Dr. Chhabi Lal Thapa and Deb Prasad Pandey

10:40 – 11:10

**Snakes and Snakebite treatment in context to Nepal**  
– led by Dr. Chhabi Lal Thapa

Dr. C.L. Thapa beginning his presentation



One of the famous Lama- Suka Lal Gurung wearing Garland of beads has shown his keen interests



Dr. Thapa illustrating the prevalent but risky multiple tourniquet applied by victims arrived in his hospital in Nawalparasi District, Nepal

11:10 – 11:20 Discussion

11:20 – 11:50 Study of medically important snakes, their bites and treatment in Nepal - By Dr. C.L. Thapa



Dr. Thapa teaching farmers and students how to treat the non-venomous and venomous snakebite victims



11:50 – 12:00

**Discussion**



Para-veterinerian- Tika Ram Poudel (Bagauda VDC program) raising the queries on tourniquet for man and livestock!

12:00 – 12:30

**Refreshment with tea and Cookies**

12:30 – 13:15

**How to do first aid? What is its role to snakebite management? – Theory and Practical (demo) –led by Dr. C.L. Thapa and D.P. Pandey**





Dr. Thapa and D.P. Pandey demonstrating how to do first-aid to snakebite in extremities and to Baghauda farmers; similarly, they have learnt other farmers and students in Madi Valley



Dr. Thapa, male and female trainee demonstrating how to do first-aid to snakebite in extremities to Gardi VDC farmers



Dr. Thapa and a paramedic from Kalyanpur health post demonstrating how to do first-aid to snakebite in extremities to Kalvanpur VDC farmers



Dr. Thapa and D.P. Pandey demonstrating how to do first-aid to snakebite in extremities to Ayodya puri VDC farmers





Dr. Thapa and a student trainee demonstrating how to do first-aid to snakebite in extremities

**13:15 – 13:30**

**Discussion**

**13:30 – 13:45**

**Value of means of transport – by Deb Prasad Pandey**

**13:45 – 14:00**

**Class work -which means of transport should be used (in priority order) unless Snakebite victim is carried to snakebite treatment center? –led by Nava Pandey**





Students under group wise discussion to list the feasible means of transport after first-aid for inhabitants in Madi; also, the group leaders presenting the data

**14:00 – 14:05**                      **Correction of Class work-** by Dr. C.L. Thapa and D.P. Pandey

**14:05 – 14:15**                      **Group division for the simulation of snakebite and application of WHO Recommended first-aid and instructions to simulate at periphery of the venue**  
 - led by Nava Pandey



Ayodyapuri Farmer Groups under discussion for simulation of first-aid and transportation to snakebite victim

Students Groups under discussion for simulation of first-aid and transportation to snakebite victim



**14:15 – 15:00**                      **Simulations of the snakebite and application of first aid – led by trainee in group**

*- Evaluation by: Dr. C.L. Thapa, Deb Prasad Pandey, Shashidhar Baral, Nava Pandey*



Bagauda VDC farmers simulating first-aid to snakebite and transportation to health care centre supplied with anti-snake venom





Gardi VDC farmers simulating first-aid to snakebite and transportation to health care centre supplied with anti-snake venom



Kalyanpur VDC farmers simulating first-aid to snakebite and transportation to health care centre supplied with anti-snake venom





Ayodyapuri VDC farmers simulating first-aid to snakebite and transportation to health care centre supplied with anti-snake venom; Farmers in all programs have involved actively carrying victim to snakebite treatment center as quickly as possible in such a local transport that shakes the victim's body less as far as



Students of Madi Valley simulating first-aid to snakebite and transportation to health care centre supplied with anti-snake venom

**15:00 – 15:30**

**Lunch and tea**

**15:30 – 16:00**

**answering of the curiosities of trainee - D.P. Pandey and Dr. C.L. Thapa**

**16:00 – 16:20**

**Evaluation of the day D.P. Pandey and Dr. C. L. Thapa**

**16:20 – 17:00**

**providing the evaluation forms to fill (at venue as far as possible)**



Farmers of Bagauda (first row) and Kalvannur (second row) are fulfilling the evaluation form

Note: Gardi & Ayodyapuri farmers and Students trainee filled the forms at their home and provided first hour of third day program. Even those from Bagauda and Kalyanpur VDCs who were far from the venue completed the form at their residents and provided at third day program.

**In 3<sup>rd</sup> day**

(Film show, replying of queries and curiosities of snakes and snakebite treatment, Prize distribution, speech from trainee to analyze the program and formal ending of program)

**10:00 – 10:20                      Registration (daily attendance)**

**10:20 – 11:20                      Snake related film show (behaviour of snakes, their studies, collection technique, milking of venom, preparation of antivenom etc.)- Dr. C.L. Thapa**



Farmers are enjoying the film of snakes behavior, antivenom production method etc.



Students enthralled and enjoying the snake film show!

11:20 – 12:00

Answering of the curiosities of trainee - D.P. Pandey, Dr. C.L. Thapa & R.C. Piya



Program manager and announcer- Nava Pandey sorting and reading the curiosities of farmers (Bagauda)



Farmer-Mohani Lal Aryal (Bagauda-7) demonstrating the herb used to keep snakes away from his home. He raised the question-does it have snake repelling property? We replied “it requires experimental research prior to reply logic answer”.



Mr. Pandey, Mr. Piya and Dr. Thapa dealing the queries and curiosities of farmers and students in respective programs in Madi Valley

**12:00 – 12:30            Tea and Cookies**

**12:30 – 12:50            Announcement of best three trainee, best two trainee who arrived in time and prize distribution- Nava Pandey, program manager and announcer**

<b>Prize Distribution</b>					
<b>Particulars</b>	<b>Bagauda</b>	<b>Gardi</b>	<b>Kalyanpur</b>	<b>Ayodyapuri</b>	<b>Students</b>
<b>A. Best trainee</b>					
<b>First</b>	Mina Dhakal, Bagauda-8	Khem Bd. Sunuwar Gardi-4	Dina Nath Paudel Kayanpur-4	Ghanshyam Paudel Ayodyapuri-1	Rama Aryal Harinagar L. Sec. S.
<b>Second</b>	Praba Datta Neupane, Bagauda-8	Hiramani Mahato Gardi-5	Ganga Adhikari Kalyanpur-3	Radha Devi Ayodyapuri-2	Urmila Bashyal Madi Campus
<b>Third</b>	Nem Narayan Yadab, Bagauda-5	Ganga Dhakal Gardi-3	Jaya Ram Chaudhari Kalyanpur-1	Bhabu Ram Adhikari (small) Ayodyapuri-2	Shiva Raj Timilsena Madi Campus
<b>B. Trainee in time</b>					
<b>First</b>	Churamani Pandey, Bagauda-4	Jian Mahato (Gurau) Gardi-5	Rishi Ram Adhikari Kalyanpur-7	Gita Gautam Ayodyapuri-5	Uma Bhandari Krisnanagar L. Sec. Sc.
<b>Second</b>	Mohani Lal Aryal, Bagauda-7	Bishnu Maya Mahato Gardi-5	Sabita Subedi Kalyanpur-7	Yuba Raj Adhikari Ayodyapuri-9	Santosh B.K. Krisnanagar L. Sc. S.
<b>Total</b>	5	5	5	5	5



First



Second



Third



First timely arrived

Best trainees of the **Bagauda VDC Program** (see table), Tika provided by-Madhav Chapagai, the Chairperson, Buffer Zone Office, Bagauda and award provided by Dr. C.L. Thapa



Second timely arrived



First



Second



Third



First timely arrived

Best trainees of the **Gardi VDC Program** (description in table), Tika provided by- R.C.Piya, the head, Dpt.Zoology, Birendra M.Campus, T.U., Bharatpur (trainer too) and award provided by Dr. C.L. Thapa

Photo Missed

Second timely arrived





First



Second



Third

First timely arrived



Best trainees of the **Kalyanpur VDC Program** (description in table), Tika provided by- Senior health professional, Health Center, Basantapur, Madi and award by Dr. C.L. Thapa

Second timely arrived



First



Second



Third

First timely arrived (women with black coat) and Second timely arrived also aside with ghee colored cap



Best trainees of the **Ayodyapuri VDC Program** (description in table), Tika provided by- Chairperson, Ayodyapuri Buffer Zone Office and award by Dr. C.L. Thapa



First



Second



Third



First timely arrived (girl) and Second timely arrived (boy together getting tika and award



Best **student trainees** (see table) getting tika from- Shashi Dhar Baral, the head, Shree Khairahani L. Sec. School & award from – Badri Nath Adhikari, Campus Chief, Madi Campus, Madi



Urmila Basyal-the second best trainee representing the best group and providing chocolate to all the student participants



12:50 – 13:20

Certificate distribution

Kalyanpur VDC



Kalyanpur VDC



D.P. Pandey providing certificates of participation to trainees of Kalyanpur VDC program



Dr. Thapa providing certificates to trainees of Ayodyapuri VDC



Students congregated with Certificates in My Clear Bag

**13:20 – 14:00**      **Speech to analyze the program (at least best three trainee, one lady and one gent)**



Madhav Chapagai – Baghauda farmer and Chairperson of Buffer Zone Office, Baghauda giving analytical speech and also closing the program formally



Two Gardi Female farmers in front of hall and analyzing the three day program



Three Kalyanpur farmers giving analytical speech to summarize three day program



Five Ayodyapuri farmers (top rows represents best three and second row represents one male and one female trainee) giving speech to analyze the three day program



Students analyzing the program and suggesting to continue the program throughout the nooks and corner of the country

14:00 – 14:10

**Making Committed to provide service (knowledge gained by training) to neighbors and other members of the group - Shashi Dhar Baral / Nava Pandey**



Shashi Dhar Baral-  
principal of  
Kharahani L.S.  
School made all alert  
to disseminate the  
knowledge gained  
from training

14:10 – 14:20

### Closing of the Program



Ayodyapuri  
Bufferzone  
Chairperson  
gave vote of  
thanks to  
ANMF,  
PARASED and  
ANCU, Nepal

14:20 – 15:00

### Lunch and tea; and formal separation with the groups

## 5. Evaluation and Analysis of Forms filled up and returned

- About 88% of the total trainee of the program replied (ticked) for the program was best, 7% for better and 5% for good.
- The facts/causes behind the program being best were enlisted as:
  1. They got invaluable knowledge of first-aid to snakebite
  2. made them able to distinguish the venomous snakes from non-venomous
  3. got new and unique information on snakes
  4. empowered the needy people (farmers and students) of rural community
  5. knew the importance of the snakes
  6. became clear that it would reduce the economic burden if they reached the treatment center in time with recommended first-aid
  7. got idea how to prevent from snake bite
  8. got knowledge of snakes species diversity
  9. became hopeful to diminish/ avoid the prevalent traditional knowledge and skills
- Of the total, 89% developed the ability to apply the recommended first aid. Left over trainee replied that they requires additional training program to enable/fit them to apply the knowledge to locals.
- Almost all participants promised not to kill snakes wherever they encounter or see.
- Weaknesses of the program:
  1. Power Point Projector damaged (on second day of Ayodyapuri VDC)
  2. not allowing the trainers to speak more (overactive participation of Ayodyapuri VDC)
  3. Trainers used English words
  4. noise outside (because there was meeting in aside hall)
  5. could not include many people from wards
  6. very short training period
  7. Old farmers talked more!
  8. No entertainments to refresh
  9. No rules before starting the program
  10. programs could not run as in prescribed time
  11. no leaflets of program activities and time in advance
  12. best program with no booklets, posters of venomous snakes etc.

- 13. congested room and only chairs
- 14. less use of cardboards
- 15. No large screen show (for students program as the projector was damaged in Ayodyapuri VDC program)
- 16. Not good sitting place (for students who sat on floor)
- 17. Computer problems (due to fluctuation of voltage of generator)
- Suggestions to overcome the weaknesses

To conduct such program through out the nooks and corner of rural Nepal

To broadcast the information on snake and first aid to snakebite through radio, FM, and Television Channels

To provide the books/booklets containing information on snakebite symptoms, treatment etc in simple Nepali language

To distribute the CD for visual show (in Nepali Medium) of activities (behaviors) of snakes, first-aid method etc. to the affected area (including all the villages)

To commence the snake farming in Nepal and produce the antivenom in Nepal

To distribute the antivenom for each and every health post of rural Nepal

To provide optimum training to health post in charge

To conduct refreshment training in future

To manage TOT programs to disseminate the knowledge to needy people of Nepal soon. After the TOT program, the trainers may lead about 3 to 6 months educational program to know all the affected locals the first-aid, venomous and non-venomous snakes of the region. So, they won't kill whatever snake they will see/ meet/ encounter.

To train the school and college students for quick dissemination of the first aid skill

To distribute the Poster or Calendar illustrating major venomous snakes to each household of the affected districts (n=24) of Nepal

To make one book that includes all the reply of their curiosities and queries on snakes and snakebite treatment, and the superstitions of snakes.

To improve technical aspects (power supply system and others) and use large screen

To use live snakes for better understanding

- Their remarkable expectations from **Government** of Nepal/ **NGOs/ INGOs** in near future
  1. supply ASVS to each and every health post of affected area of Nepal
  2. produce anti-venom in Nepal by farming the concerned snake species in proper place
  3. provide ambulance to needy (rural) parts of Nepal
  4. launch such awareness programs through out the plain of Nepal

5. develop CDs containing all the information (in Nepali Language) and distribute at least one for one farmers group in each VDC of Terai
  6. distribute the Poster or Calendar illustrating major venomous snakes to each household of the affected districts (n=24) of Nepal
  7. make one book that includes all the reply of their curiosities and queries on snakes and snake-bite treatment, and the superstitions of snakes
- Highly likely activities of the program are:
    - use of computer, power point projector
    - use of dead snakes, rubber snake sample
    - Large sized laminated snake photos
    - heuristic method of teaching
  - Highly unlikely activities
    - Not at all

## 6. Means of transport

The farmers and students had known the value of means of transport. They were well aware that they would move to snakebite treatment center immediately after the First-aid using the means of transport that moves the bitten parts/ whole body as less as possible.

From the discussion with farmers and students over the means of transport, the easily available means of transport in rural Madi have been listed below in order:

1. Keeping victim in back of supporter (if event was far from residential area – river bank, jungle etc)
2. Keeping victim in Doli (if event was aside home)
3. Keeping in Khatia or Charpai {Doko for hill region}
4. Keeping in Stature
5. Keeping in Cycle (but not riding!)
6. Keeping in Motorcyle
7. Keeping in Ambulence

The participants were instructed that the spare manpower would telephone to motorbike or Ambulence and manage the better means of transport as quick as possible. Meanwhile, victims would be moved to treatment center whatever they found the means. On the way, they could exchange the victim in better means of transport. They were aware to the case as time critical too.

Moreover, they were alerted not to use cart that causes slow and shakes the body more because it is very difficult to avoid joltings.

*We are glad to hear the appreciation of the program from farmers group. We are hopeful that farmers will follow up the WHO's recommended first-aid and means of transport to hospital, and also able to identify venomous snakes.*

## 7. Constraints of the Program

- We could not carry the participants to museum of Kasara- the head quarter of Chitwan National Park where participants could see many venomous and non-venomous snakes because of financial limitation



- The simulation of snakebite and application of first aid could not be carried out in Chock (meeting point of road) due to time constraint
- The snake-related films were in English medium. So, we could not understand the illiterate farmers adequately.
- ***One interesting but annoying event of the program was that all the guest and visitors to Buffer Zone office and Red Cross Office (aside to program hall) denied to leave the hall.***

## 8. Acknowledgements

We would like to thank very much to ANMF team in Nepal and USA who provided financial support without which those deprived people in Madi Valley could not be benefited being cautious of snake and snakebite treatment on the spot. Moreover, we are indebted to Dr. Saroj Dhital, Dr. Shankar Rai and Ngwang C. Lama of ANMF, Nepal branch and Dr. Fred Shepardson- the project manager ANMF USA branch for their generosity.

Also, we do like to appreciate Ass. Prof. Dr. Ranjana Gupta, President, Ashok Bam, Secretary, Satish Kumar Jha, Treasurer, PARASED, for her continual openhanded support to accomplish training.

We are also thankful to Mr. R.C. Piya- head of Zoology Dept., Birendra M. Campus, T.U., Bharatpur, Chitwan for his support us as a assistant trainer.

We would like to thank Kedar Baral- Chairperson of the ‘Maheshori Farmers Coalition’ who assisted to invite the farmers in program. Similarly, we are thankful to Mr. Nava Pandey- program manager, Mr. Shahi Dhar Baral and Mamata Pandey – volunteers for their tireless support and all other trainee and guest of whole programs in Madi valley for their participation devotedly and wholeheartedly.

## 9. References

- Pandey DP, Shrestha BR, Pradhan SK 2007. **Variation of ASVS Vials Consumption with respect to Duration of Bite, Means of Transport and First-aid to Snakebite in Bharatpur Hospital, Chitwan, Nepal.** Presented in Venom Week 2007 Conference, Tucson, Arizona, USA (Sept. 03-07, 2007). Available on web:  
<http://www.anmf.net/programs/projects/2006projects/06bh001/06bh001report071204.pdf>  
Also, under peer review on: Journal of Medical Toxicology, USA
- Pandey, DP 2007. **Epidemiology of Snakebite Based on Field Based Survey in Chitwan and Nawalparasi District.** *Journal of Medical Toxicology*, USA, **3** (4):164- 168.
- Sutherland SK, Coulter AR, Harris RD 1979. **Rationalisation of first-aid measures for elapid snakebite.** *Lancet* 1979; 1:183-5.
- Warrel DA 2005. **Guidelines for the Clinical Management of Snake Bite in the South-East Asia Region**[first published as a supplement to the Southeast Asian Journal of Tropical medicine and Public Health, Vol 30, supplement 1, 1999].WHO, Regional Office for South-East Asia, New Delhi.