

SEVA Annual Report 2018-2019

1. Documentation and Dissemination of Innovations:

During this year we have documented 269 innovations/practices (herbal healing practices for human 57, herbal healing practices for animals 140, agricultural practices 30, agricultural implements 15, mechanical innovations 23, new crop variety 2, and food recipes 3 and were submitted to National Innovation Foundation, Ahmadabad (NIF).

As a part of Honey bee Network partners initiative “Num Vali Velanmai” has been printed by SEVA in Tamil at quarterly interval for dissemination of innovations. There are 292 subscribers including 80 life subscribers.

State level workshop on “Grassroots innovations”

One day State level workshop on “Grassroots innovations” has been organized on 24 June 2018 at Sami community hall, Erode. Mr Annamalai local innovator has organised all the arrangements and also displayed his low cost waste cleaner / motorised 3 wheeler. There was participation of 33 members including Innovators, herbal healers and entrepreneurs. Mr. P. Kandaraj, President of the Grassroots Innovations Association welcomed the participants. There was the self introduction of innovators, their products and few members displayed their innovations(ecofriendly vinayaga idol, new weeder from Balaiah, herbal plants) The association has extended venture capital support for the following innovators:

Mr. Gayathri prasad – Warp block for small metallic idols	-Rs. 50,000
Mrs. Bhavaneshwari – Enhancing binding skill	-Rs. 12,000
Mr. Sekar – Weft insertion in handloom	- Rs. 40,000
Mr. Mahendran – Organic dairying	-Rs. 30,000
Mr. Alagarsamy – New drumstick variety	-Rs. 1,00,000
Mr. Banumurthy – Weft insertion in handloom	-Rs. 50,000
Mrs. Jothimani – Nutritious millet food	-Rs. 30,000
Mrs. Vasuki Manikandan – Herbal preparations for human-	Rs. 50,000
Total - Rs.	3,62,000

Mr. P. Vivekanandan, SEVA gave introduction of this workshop and asked the innovators to brief about their background and innovation. While the innovators briefing their innovations video have been displayed simultaneously to understand better the technology of their products or practices developed by them.



Festival of Innovation and Entrepreneurship.

It was organised by National Innovation Foundation on 15-18 March 2019 at Gandhi Nagar, Gujarat. President of India Shri Ram Nath Kovind gave awards to innovators and 4 innovators from Tamil Nadu (Mr. Saravanamuthu- Toilet cot, Mr. Periyasamy – Herbal medicine for poultry diarrhoea, Mr. P. Ravi – Jacquard lifting machine, Mr. P. A. Sekar – Multi stripe weaving machine) received awards. SEVA has earlier documented their innovations.



Innovation Festival 2018:

This was organised by Regional Science Center, Tirupati on March 2 - 4th 2018. Mr. Banumurthi, Handloom weaver innovator, Mr. Chellamuthu, Herbal pesticide innovator, Mr. Ramakrishnan, Sadh mirthingam innovator have participated and displayed their products.

Ethnoveterinary Training :

We were resource person for Training for Ethnoveterinary practices for farmers and Govt. officials as given below:

S.No	Date	Training	Place	Trainees
1	21 May 2018	Ethnoveterinary	Jundla, Haryana	Breed Saviour Awardees, Farmers, Scientists
2	12-13 June 2018	Ethnoveterinary	Virudhunagar	SHG members of World Vision India
3	6-7 Aug. 2018	Ethnoveterinary	Manaparai, Trichy	SHG members of World Vision India
4	17-18 Sep. 2018	Ethnoveterinary	Sirsi, Karnataka	Farmers and herbal healers for animals
5	11-12 Oct. 2018	Ethnoveterinary	NRLM / NIRD, Guwahati	District Officers of SRLM , Arunachala Pradesh
6	21, Dec. 2018	Ethnoveterinary	Thoothukudi	Veterinary Officers from Thoothukudi district

2. Conservation of Local Livestock Breeds

“Breed Saviour Award Ceremony 2017” and workshop on “Community based conservation of local livestock breeds”

On the eve of International Biodiversity Day on 21 - 22 May 2018 the following programmes were organized:

1. Breed Savior Award Ceremony
2. Workshop on Community based conservation of local livestock breeds
3. Poster competitions for school students and research scholars



Inauguration of the programme

On 21 May 2018 the awardees, accompanying persons, and NGOs totaling 50 members visited Shri Krishna Gopal Gaushala, Jundla, Karnal (Haryana) about 25 K.M. away from Karnal. NBAGR has under taken a research project at this Gaushala for the past three years for Conservation of Sahiwal and Haryana cattle. Under this project, birth to 47 calves has been recorded till date. Genetically improved cows are expected to have better milk yield. Free veterinary services are being offered to the Gaushala animals by NBAGR.



Preparation of Herbal masala bolus for Animals

The NBAGR scientist's viz. Dr. R.K. Pundir, Dr. Raja, and Dr. A.K. Mishra presented the details of the project. SEVA team members presented ethno-veterinary practices and explained simple herbal recipes for 5 diseases. Demonstration on preparation of *herbal masala bolus* has been performed by them. The Team members include Smt. Sakuntala, Smt. Chellam and Sri. Arumugam healer from Tamil Nadu. SEVA distributed booklet on 'Ethno-veterinary practices' printed in Hindi to the participants. In the evening the participants visited Kurukshetra, a town of rich cultural heritage of our country.



Visit to local Gaushala and Administration of herbal bolus to animals

On 22 May 2018 second day programme begin with ICAR and NBAGR song followed by prayer song by SEVA members. Dr. P.K. Singh, Principal Scientist, NBAGR gave welcome address. History of Breed Savior Award was presented by Mr. P. Vivekanandan, Executive Director, SEVA. He briefed the chronology of events beginning from 2008 till 2018, which include 8 rounds of competition and recognition through awards supported by National Biodiversity Authority of India, Chennai (Breed wise awards presented till 8th round are shown in Annexure 1).

Dr. Arjava Sharma, Director, NBAGR presented the role of NBAGR in management of Indian Livestock Diversity. He mentioned that NBAGR registered 169 numbers of breeds of different species in the country and NBAGR's effort of coordination with different regional institutes and state Govt. in this regard. The director called all the winners of Breed Savior to act as ambassadors of the Livestock conservation and requested them to create awareness among the people of their area for conservation of precious Livestock diversity of India.



Release of Book on profiles of Breed Saviour Awardees 2017

Since 2016 onwards Breed Savior Award Ceremony is being organized on 22 May to coincide with International Biodiversity Day. In addition to Breed Savior Awards, poster competition on Biodiversity for students of colleges / schools were also been organized by NBAGR on this date.

Shri P. Vivekanandan SEVA has briefly presented his comments on the proposed bill "Registration of Domestic Animal breeds and Farmers Rights Act" prepared by NBAGR. This bill is in preliminary stage and lot of efforts are required to convert this bill into an Act on the lines of PPV &FR Act of India. The details of comments are shown below:

1. In the introductory part the bill focus shall be “to prevent further loss of breeds” and “why breed is lost” shall be highlighted.
2. Bill can be renamed “Protection of Domestic Animal breeds and Livestock Keeper Rights Act” instead of “Registration of Domestic Animal breeds and Farmers Rights Act ”.
3. The proposed authority in the bill shall have important role of preventing loss of breed by looking into breed, associated ecosystem, and cultural practices. Holistic view of breed is looked into. Participatory approaches of all stake holders involved in resolving the grazing and other issues including line departments viz. Revenue, Forests, Animal Husbandry, breeder associations, communities, outstanding breeders, scientists etc are to be consulted through regular meetings.
4. National Register of breeds shall include not only breeds but also associated knowledge, innovation, practices and ecosystem
5. Recognition of contribution of communities/ individuals in the conservation of local breeds through rewards, value addition and entrepreneurship.
6. To support organizations, institutions to achieve the objectives through grants are to be mentioned.
7. Forest Rights Act 2006 shall be linked for effective implementation to protect the rights of breed conserving pastoralists.



Mr. Dhanne Singh, Rajasthan receiving Breed Savior Award 2017.

Breed Savior Awards were distributed to 20 livestock keepers and one camel breeders association of Kutch representing 6 states. Each of the awardees has been given cash award of Rs. 10,000 and a certificate. The names of awardees selected are given below:

1. Mr. Dhanne Singh (for conservation of Magra Sheep)
2. Mr. Hariram (for conservation of Magra sheep)
3. Mr. Raja (for conservation of Molai Aadu Goat)
4. Smt. Muthulakshmi (for conservation of Molai Aadu Goat)

5. Smt. Mamatha and Sri. Ananda shri (for conservation of Malnad Gida Cattle)
6. Smt. Chittu (for conservation of Kundrakudi Kuttai Cattle)
7. Mr. Joraram Dewasi (for conservation of Jaisalmeri camel)
8. Mr. Sumer Singh Bhati (for conservation of Jaisalmeri Camel)
9. Mr. Pithubhai Bhimbhai Boricha (for conservation of Gir Cattle)
10. Mr. Rameshbhai Shivabhai Ghoniya (for conservation of Gir Cattle)
11. Mr. P. K. Hari Hara Iyer (for conservation of Vechur Cattle)
12. Mr. Rameshbhai Jesingbhai Dav (for conservation of Jaffrabadi Buffalo)
13. Mr. Chandubhai Jadavbhai Bhalala (for conservation of Jaffrabadi Buffalo)
14. Mr. Govind Paraji Ausekar (for conservation of Pandharpuri Buffalo)
15. Mr. Muthukrishnan (for conservation of Pattanam Sheep)
16. Mr. Muniasamy (for conservation of Pattanam sheep)
17. Kutch Camel Breeders Association (for conservation of Kachchhi Camel by Kachchh Unth Uchherak Maldhari Sangthan)- Only Certificate
18. Mr. Bupathbhai Jadhav Bhai (for conservation of Halari Donkey)
19. Mr. Sadanandan (for Innovative approach in agriculture and animal husbandry by keeping local cattle breed).
20. Mr. Omprakash Kanteshwar Kalokar (for conservation of Nagpur Buffalo)
21. Mr. Ganpatrao Tanbaji Dole (for conservation of Nagpur Buffalo).

Dr. P.K. Singh briefly presented the profile of the livestock keepers/awardees through power point presentation before receiving their awards.

The awardees were selected from the 27 entries by the 4 member's selection committee including Dr. D.K. Sadana (NBAGR Retd. Scientist), Dr. P.K. Singh (NBAGR Scientist), Dr. Kamal Kishore (Rainfed Livestock Network) and Dr. Thiruvenkadan, TANUVAS) based on criteria specified.

After distributing awards, Dr. R.M. Acharya, former DDG, ICAR, New Delhi and Chief Guest of the function spoke on the importance of conservation of local breeds and recognizing farmers or livestock keepers for their efforts in their family for many generations.

Dr. K.N. Raja extended vote of thanks to National Biodiversity Authority for financing the Breed Savior Award, The Chief Guest of the function Dr. R.M. Acharya, Former DDG (AS) of ICAR, Director of NBAGR, all the participant of the award, awardees and their associates, persons who documented the profile of the animal keepers, Judges for evaluating the profile, students/teachers and research scholars participating in poster competition.

Poster Competition:

A poster competition was also organized at this occasion. The competition was in two groups:

1. Group-1- School students of different schools located at Karnal (Haryana)
2. Group-2- Research Scholars studying/working at ICAR-NBAGR, Karnal.

The theme of poster was “**Increasing pollution and depleting Biodiversity**”

The posters of School group were evaluated by two Principal Scientists of NBAGR, Karnal (Dr. Rekha Sharma and Dr. Reena Arora) and the posters of Group-2 were evaluated by Dr. A.R. Sirothia, Former Head of Animal Genetics and Breeding at Nagpur Veterinary College and Dr. A.K. Singh, Principal Scientist at ICAR-NDRI, Karnal. A total of seven schools and nine Research Scholars participated in the poster competition.



Winners of poster competition receiving award-(school students category)

In the Group-1 (School students), the posters of Pratap Public School and Adarsh Public School secured first; The Millennium School and Delhi Public School, Karnal secured second and Dyal Singh Public School (Main branch) and Tagore Bal Niketan secured third position. In the Group-2 (Research Scholars), poster presented by Ankita Sharma and others was judged as First whereas, Ashish Ranjan and others secured second and Mandeep Kaur and others secured third rank.

Acknowledgement:

The programme has been supported by National Bio-diversity Authority, National Bureau of Animal Genetic Resources, Sahjeevan and The Humane Trust.

Vembur Sheep breed Conservation:

After completion of CEE supported programme we have been continuing the vembur sheep breed conservation by extending microcredit for sheep housing, family expenses, agricultural operations etc. we extended Rs. 1,45,000 to 9 members. The repayment was Rs. 23,000 till date. The project is being implemented in Pudhur block (Thoothukudi district) and Nathathupatti village, Sathur block Virudhunagar district. We have conducted monthly meetings with breeders keeping Katchakatti black sheep in Vadipatti block Madurai district

Goat Rearing Training Programme:

SEVA has implemented IFAD Assisted PTSLP with Goat Rearing Training Programme for SHG members in Manamelkudi and Avudaiyar koil taluks, Pudukkottai district. The project period has been shortened to 8 months from the original proposition of 18 months. The main objectives are reducing mortality rate, increasing body weight of goats purchased for the beneficiaries by following scientific practices in order to enhance their income from goat rearing.

We are showing the outcome of the project and achievement of measuring only few indicators possible during the 8 months period. However the project is being extended for another 11 months (May 2019 – March 2020) and during this II Phase the income of the families will be analysed based on reproductive performance, sales of goats and earnings etc.

1. Herbal Treatment and Herbal First Aid Kits for Goats

During our training program to CLVs and village beneficiaries we demonstrated the following items :

1. *Herbal masala bolus* for digestive related problems and for providing body immunity
2. Preparation of *Mathan Thailam*
3. Preparation of Herbal dewormer

The CLVs have developed skills in preparing these 3 items. During the animal health camps they repeated preparing the herbal preparations and therefore all the CLVs became expert in ethnovet skills.

Herbal masala bolus



Preparation of herbal masala bolus at Mumbalai on 8.2.2019

The preparation of herbal masala bolus using locally available medicinal plants and procuring small quantity of spices and condiments from local grocery shop. Each bolus is about 30 gm in weight. The bolus is very effective if it is given to animals within 3 days of preparation. However it is stored for few weeks if it is kept under dry and shade condition free from moist.

The bolus has been administered to 3667 animals including 2636 goats in health camps organised in 25 villages during Sep.2018 – March. 2019. Usually it is to be

administered monthly once. In addition the CLVs prepared *herbal masala bolus* at village level and supplied to those beneficiaries who were in need of it for their animals. Few CLVs have distributed on cost basis i.e. Rs. 5 – 10 per bolus. Herbal masala bolus has given outstanding results in maintaining the health of goats.

The following observations were enlisted by 57 beneficiaries interviewed by us during the first week of April 2019.

Table – Feedback of 57 beneficiaries on administration of *herbal masala bolus*

S. No	Nature of changes told	Rating
1	Animals take feed vigorously	18
2	Animals free from diarrhoea	20
3	Texture of skin good	4
4	Milk yield increased	2
5	Free from internal parasites	4
6	Free from disease (mainly FMD)	16
7	Free from cold / cough	8
8	Free from bloat	5
	Total	57

Preparation of *mathan thailam*



Mathan thailam preparation during CLV training during Sep. 2018

Next to herbal masala bolus mathan thailam is second popular product among the beneficiaries. This *thailam* is being prepared by using coconut oil, leaf extract of *Datura* and copper sulphate. It is very effective in wound healing including maggot wounds. CLVs learned the method of preparation and during the training programme; they prepared the thailam and kept it in bottles for use in the animal health camps. This *thailam* can be stored and kept for use upto 6 months. During the interview with 57 beneficiaries majority of them 7 responded the

effectiveness of *mathan thailam* as they have actually seen the results while using for their animals.

Herbal Dewormer



Administration of herbal dewormer during Animal Health Camp in Manmelkudi during Oct. 2018.

It is prepared by mixing leaf extract of *neem*, *Aloe vera*, *Calotophis*, *nochi*. It is being administered in liquid form at 5 – 10 ml depending upon goat age. It is effective in controlling internal parasites. This solution can be kept for use upto 6 months. After the treatment the dung of goat become solid and worms can be observed in the dung samples. Out of 57 beneficiaries interviewed for feedback of herbal medication to goats only 4 have used this herbal dewormer and all 4 members reported their positive experience stating that animals become vigorous in feeding habits due to deworming effect.

First Aid kit for Animals



Dr. Somasundram, Asst. Director of Animal Husbandry received the First Aid Kit box on 19.3.2019

Herbal First Aid Kit is an outcome of our intensive goat rearing training programme we organised for CLVs and also while assessing the need for such a kit to fulfill the local expectations for quick treatment in remote areas where access to veterinary facilities is quiet difficult. It contains herbal preparations for instant treatment of 7 illness in animals. The herbal medicine can be administered once in a day and continued for 3 days or till the point of cure. The herbal preparations are

effective upto 6 months from the date of manufacturing. First Aid kit have been produced by the selected CLVs along with SEVA staff. The cost of production of the kit is Rs. 300. The kit can be refilled with fresh herbal preparations once exhausted.

Feed back of Community Livestock Volunteers using First Aid kits:

SEVA has distributed First Aid Kit to 40 CLVs on 10.10.2018. On 25.2.2019 a meeting with CLVs exclusively on the effectiveness of First Aid kit were discussed. The Positive experience of CLVs shows that it is effective against diarrhea, bloat, dog bite, skin disease, nasal discharge due to cold, wounds, internal parasites, external parasites (ticks, lice), broken horn wound and fever.

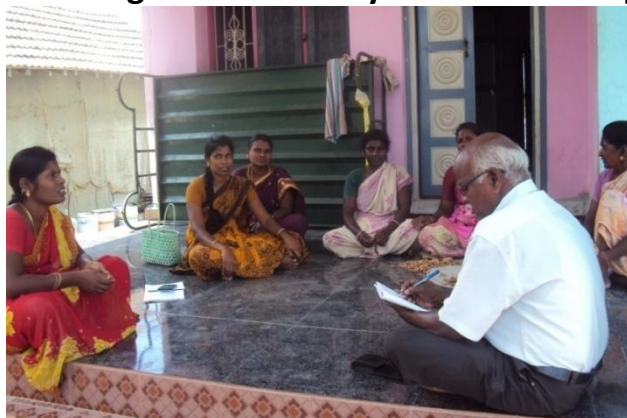
We supplied Herbal First Aid Kits for informal testing to Joint Director of Animal Husbandry, Pudukkottai(thro district collector), Veterinary College, Orathanadu, Joint Director Animal Husbandry, Madurai. TANUVAS- UTRC, Madurai and few farmers during Jan. – March 2019.

However due to code of conduct of election formalities and their busy engagement with election duty we are unable to get their feed back. The Director of Research, TANUVAS is agreed to enter MoU with SEVA for validation through payment or testing fee basis. The terms of reference will be finalised by May – June 2019.

Meanwhile Tamil Nadu Women Development Corporation, Chennai is interested to train about 3000 Community Resource Person (CRPs) on ethnoveterinary practices during June 2019 onwards. They also intend giving purchase order of 3000 First Aid Kits from us. Once this order is confirmed SEVA will encourage local Panchayat Level Federation (PLF), Mumbalai along with 3 CLVs for mass production and supply of kits to them.

There is good scope for a CLV to prepare these 3 herbal preparations and sell them locally and thereby earning income of minimum of Rs.1000 per month by preparing 100 herbal masala bolus, 5 litre of herbal dewormer and 1 litre of *mathan thailam* on monthly basis. Also good number of enquiries on availability of First Aid Kit with Mumbalai -PLF after the success story published in *Kumudm -Manvasanai* Popular Tamil Fortnighly journal April 2019 (April1-15) Issue.

Reducing Goat Mortality in the Goat Project



Interview with Kottayanthoppu beneficiaries, Meemisal

We have surveyed 662 beneficiaries keeping goats in 14 Panchayats of Manamelkudi and Avadayar Kovil Taluka of Pudukkottai district during Sep. 2018. They maintain 5262 goats. The mortality rate of 20% were normally reported both for adults and kids. Panchayatwise beneficiaries reporting of 20% mortality were numbered and 178 beneficiaries reported. We organized animal health camps in 25 villages and distributed herbal masala bolus, herbal dewormer, animal feed (to limited farmers) to considerable goat population during Sep. 2018 – Feb.2019. After the camps we interviewed Community Livestock Volunteers (CLVs) and few village beneficiaries during March 2019 who reported mortality rates were very low only i.e. 1-2% . There is no incidence of Foot and Mouth Disease and diarrhea in the treated villages (after animal health camps) and therefore no death or only few animals died.

Goat Mortality Rate Before and After the Project Period

S. No	Panchayat	Goat population	Before Treatment				After Treatment		
			Mortality rate (20% & above)		Major reason for Mortality		Animal health camps		Goat mortality rate*
			Adult	Kid	FMD	Diarrhea	Date	Villages	
1	Vettivayal	613	5	10	17	12	27.9.18	Kumarappan vayal	less than 1%
2	Ammappattinam	97	12	7	-	7	21.12.18	Alimsavayal, Ammapattinam North & Keelakudiyiruppu	less than 1%
3	Ponnamangalam	560	15	15	-	16	19.12.18	Parayanenthal, Ponnamangalam & Sirukadavakottai	less than 1%
4	Meemisal	196	8	9	4	5	26.12.18	Kottaiyan thoppu	less than 2%
5	Nattani purasakudi	639	27	28	-	16	4.10.18	Koodalur & Pathirakudi	less than 1%
6	Mumbalai	550	46	35	1	27	20.9.18	Melasthanam	less than 2%
7	Puthampoor	384	9	7	3	-	23.11.18	Muthuvel nagar & Ezhukani vayal	less than 1%
8	Kattumavadi	165	7	5	-	2	4.12.18	Kattumavadi	less than 2%
9	Vichoor	654	6	6	5	14	11.10.18	Gunapathimangalam road	less than 1%
10	Kottaipattinam	321	23	20	5	-	25.9.18	Pudukudi south	less than 2%
11	Manamelkudi	189	1	1	-	-	22.11.18 & 5.1.19	Vadakoore & Nallur	less than 1%
12	Krishnaji pattinam	116	5	1	-	3	4.12.18 & 5.1.19	Pillayar thidal & Nemilivayal	less than 1%
13	Keelamanjakudi	528	13	4	7	5	26.12.18	Jagathapattinam	less than 1%
14	Karakkottai	250	1	12	3	20	16.10.18	Karakkottai	less than 1%
	Total	5262	178	160	46	126			

However individual beneficiary wise survey and analysis need to be carried out for accuracy. It takes about 2 months to survey all 25 villages where health camps were organized during. Sept. 2018 – March 2019 . This needs to be undertaken in the second phase of the project during 2019-2020.