



A Workshop on

**Upscaling Successful Livestock Experiences
Emerging from**

AP Drought Adaptation Initiative



Date: 14th March, 2008

Place : JD AH training centre, Mahabubnagar



Organized by



**Department of Animal Husbandry (DoAH),
Mahabubnagar District**

Watershed Support Services and Activities Network (WASSAN)

&

**Mandala Mahila Samakhyas (MMSs)
(Dowlatabad, Kosgi & Bommaspet)**

Upscaling Successful Livestock Experiences Emerging from A P Drought Adaptation Initiative (APDAI)

Background

A field- workshop was organized for sharing the experiences of AP Drought Adaptation Initiative, Large Area Approach to Livelihoods and other initiatives on 14th March 2008 enthused by these efforts, District Collector, Mahabubnagar suggested to organize district level department-wise meetings to plan for upscaling some of these initiatives.



As a follow up, the present workshop is organised by the Animal Husbandry Department, Mahabubnagar district and AP DAI program (WASSAN and MMS) to share specifically about following five initiatives on which the background materials were distributed to all the Department officials.. The initiatives are;

- a) Participatory Deccani sheep breed improvement program
- b) Community managed livestock vaccination services
- c) Community managed fodder banks
- d) Promoting backyard poultry
- e) Organising goat rearers

Participants

Besides the key officials from AH Department, Mahabubnagar and VAS from the three project mandals, WASSAN team, primary stakeholders from sheep rearers groups, goat rearers , fodder groups, livestock health activists, representatives of VO/MMS, staff of MMS and GUARDS. Project Directors of DWMA and DRDA, AGM NABARD participated in various sessions. Dr. Piedy Sreeramulu (Retd. Additional Director, AHD) participated as a special invitee. The district collector presided over the plenary session.



Proceedings of the Workshop

Dr. Ramchander, Joint Director, AHD visited the field areas one day prior to the workshop to have first hand experience and interacted with various stakeholders in the villages. This visit provided a backdrop for the meeting. In the opening session, Dr. Piedy Sreeramulu and the JD gave their remarks, followed by an overview of themes by Mr. Ramchandrudru of WASSAN. Smt Manemma, President of the Kosgi MMS gave a brief overview of SHGs, MMS and their activities.

The field experience on each theme and the strategy emerging for up-scaling was presented in each session by WASSAN team. This was followed by discussions leading to some concluding action points. The Project Directors of DWMA and DRDA have given their inputs in response to the strategies outlined. The summary of the proceedings were briefed to the Smt. V. Usha Rani, District Collector, Mahabubnagar in the concluding session, following which she gave her suggestions. The workshop concluded by the vote of thanks extended by Dr. Vijay Sekhar Reddy.



Thematic Sessions:

Participatory Deccani Sheep Breed Improvement Program

Chennappa from Suraiपालly village narrated the experiences of the sheep rearers getting organized into self-help groups and forming into a network. He also narrated the process of their group getting convinced about replacing the entire rams in the flock with *Deccani* breeding rams. Ramachandrudu presented the experiences of organizing the sheep rearers and the initiatives under Deccani Breed Improvement followed by brief sharing by M. Bichanna Yadav of Guards.

Initially rams were brought from Nanded region in Maharashtra for replacing the entire rams in one flock in Suraiपालly village. There was no subsidy involved in this process; the proposition is that sheep rearer and project will bear the cost of ram on equal cost sharing basis; the rearer has to give back 2 ram lambs at the age of 4 months. Of these the better ones suitable for breeding would be used for replacing rams in other flocks after rearing for another one to one and half years.



Now several rearers are coming forward to replace rams in their flocks and the rams are in short supply. It is therefore, proposed to establish nucleus flocks (with elite *Deccani* ewes and rams) in specific locations with sheep concentration. Similarly establish the mechanisms of purchasing ram-lambs, rearing them to breedable age and using them for replacing the rams in other flocks.

Discussion:

The point of establishing nucleus flocks in the university farm in collaboration was discussed. Considering the earlier experience within the department it was concluded that they can only be used for progeny testing but not for production of quality rams. Three suggestions came out of the discussion:

- Every sheep rearers Society can take up one farmer for breed improvement –
- Initiating breed improvement in one place in every division with sheep concentration

- Possibilities of extending the model of organising sheep rearers (actual stakeholders) into small groups in line with the Kodangal experience.

It was also felt that building institutions of rearers and continuous efforts to stress upon deccani breed is important for the success of breed improvement program.

Suggestions from Sri Ravinder, PD DWMA:

1. Women groups need to be convinced about this, and then they can access the investments under Productivity Enhancement within watershed development budgets. Breed improvement can be included as a priority item in the CLRC training programs.
2. Under adaptive trials – this can be taken up on a 100% subsidy basis
3. Include these concepts and programs in the training programs of Para workers, as a priority.
4. Selecting the para-workers from the shepherd community (presently in the occupation) so that they can spread the message – this will address the communication problems.



Suggestions from Sri. Narasimha Reddy, PD, DRDA:

- The overlap between sheep breeders and SHG membership needs to be mapped. If the rearers are naturally organised into special SHGs then they can provide an organisation base
- Deccani breed improvement program can be upscaled through Village Organisations, by involving women members from the rearers families into the Sub-Committee and building on the strategy of community resource persons.
- Building on the experiences of APDAI villages, a model can be established.

M. Bichanna Yadav expressed the need for organizing sheep rearers (men) into small groups within the cooperatives as this initiative needs sustained community interaction and close follow up.

Action points Emerging from the Discussion:

Though there are questions related to farmers' acceptance, there was a consensus among the participants that the native *deccani sheep breed* improvement must be given priority in the district, particularly in the areas where breed-mix is relatively low.

Action points	Roles / Tasks			
	DWMA	DRDA-IKP	AH Department	WASSAN
Initiate deccani sheep breed improvement program to start with in Kosgi, Bomraspet,			Under Jeeva kranthi program, the AH Department will	Identify the willing rearers in these mandals and facilitate

Action points	Roles / Tasks			
	DWMA	DRDA-IKP	AH Department	WASSAN
Dowlathabad and Kodangal mandals			extend support to purchase of <i>deccani</i> breeding rams	procurement of <i>deccani</i> breeding rams
Identify 1-2 societies /mandals in each revenue division to take up this initiative			Arrive at these mandals / societies(AD sheep)	Prepare a draft strategy note for operationalisation
Integrating this initiative in watershed development programs and IKP	<ul style="list-style-type: none"> - include in the training curriculum of CLRC and para-workers - take up this initiative in few watersheds 	Experiment with up-scaling through Village Organisation	Develop strategy and note along with WASSAN.	<ul style="list-style-type: none"> - To prepare a module for training - Develop a strategy note for taking up deccani breed improvement program in watersheds and through VO

Community managed Livestock vaccination services

Bhagya laxmi of WASSAN presented the experience and emerging strategy for the AH department to institutionalize community managed vaccination services through Mandal Mahila Samakhya (MMS) and Gram Panchayats. The process involves the MMS generating indents for vaccination through its SHGs and presenting this bulk-indent for vaccines from time to time to the Veterinary Assistant Surgeon (VAS). Trained para-workers will organise the vaccination camps with support from Gram Panchayat and the VO. The vaccination service charge is collected in the camp to pay the para worker. MMS invests on bulk-purchase of vaccines not supplied by the Department and recovers its costs along with the service charges.



Such an arrangement will extend the service delivery arms for the AH department by involving the MMS. It would also help in improving the outreach, mobilization of revolving fund and easy logistics. The proposition is that the VAS organises a monthly scheduled meeting at the veterinary hospital / other place with all the CBO representatives (MMS/VO / rearers groups) to monitor disease incidence and also to plan vaccination. This interface will provide a platform for the CBOs & AH Department.

Discussion:

PD, DWMA expressed that funds are not a constraint but, sustaining the para-workers in the villages is a key issue. A revolving fund can be created with MMS/ZMS/ALDA to be used exclusively for livestock vaccination purposes. The program can also be integrated into the watershed development projects as livestock is a priority area of intervention.

PD, DRDA stressed the need for a clear action plan and budget to initiate this program through MMS. Mapping the distribution of watershed projects would give an idea of the availability of revolving fund with VOs and MMS. In the watershed development project villages (completed



or on going) revolving fund / PE funds are already available for initiating the program. DRDA can extend support for trainings by integrating this program within IKP capacity building plans/ budgets.

DWMA can give revolving fund to the VO/MMS, but the need for para- workers and the number of villages or cluster of villages that they can serve is to be assessed. Para worker salary could be taken from MMS revolving fund or CIF interest.

A module can be developed immediately to ground the program in the watershed villages and through MMS. It is decided that the initiative can be started in Dowlathabad mandal immediately from April onwards. Budgets for one mandal can be given by DWMA and para workers have to be identified from the pilot mandals. The AH Department can train them on a priority basis. The VAS in the three mandals are asked to convene monthly scheduled meetings with CBOs for which the logistics will be supported by the MMS.

Though desirable, it is difficult for the AH Department to charge for vaccination services as it is mandated to provide free vaccination. But, there is a general consensus that service charge for vaccination is essential to sustain the para workers.

Summary of Action Points Emerging:

Action points	Roles/ tasks			
	DWMA	DRDA-IKP	AH Department	WASSAN / MMS
Initiate institutionalising vaccination services in Dowlathabad mandal with help from MMS and other CBOs	- Funding for training the health activists - Establishing revolving fund at the MMS for vaccination services	Providing necessary CB and facilitation budgets to the MMS	- Training and monitoring the health activists	Developing an operational strategy and sharing it with the departments
Regular meetings to be convened by the VAS at VD, once in a month with Sheep, goat rearers, fodder groups and other livestock holders,	Concerned CLRC team members to participate in this.	Facilitating for allocating a person to coordinate at the MMS level . Make this a regular	- VAS to convene the scheduled monthly meetings - Evolve plan of action for vaccination with	Organizing all the groups along with MMS to participating in the meetings, preparing monthly plan for health

Action points	Roles/ tasks			
	DWMA	DRDA-IKP	AH Department	WASSAN / MMS
health activists and VO/MMS members		program of DRDA/ IKP	CBO representatives	services and arranging for the logistics of these meetings and follow up
Regular supply of vaccine from the department to the VAS	Providing revolving fund/CIFF amounts to “MMS Livestock Health fund”		- Establishing mechanisms of direct bulk indenting at district level and - Providing necessary vaccines and also technical support to the health activists	Getting indents from GP, VO and other groups consolidate at village level and submit to VAS through the MMS
Identification and training of livestock health activists , one person in a panchayat	Providing funds to train the health activists for about 45 days	Providing capacity building support, if required wherever necessary	Organizing training program to the identified health activists	Identifying livestock health activists , one person for each Panchayat

Fodder banks

Bhagya Laxmi made a brief presentation on the emerging experience of fodder banks. The process involves identifying households with fodder scarcity and assessing their fodder needs during summer months. With support from the project, VO purchases the required fodder and loan it to the groups to be repaid one-and-half times during the next year (when fodder is available). The returned fodder constitutes the fodder bank. The households will pay a membership fee into the Common Interest Group. The members of the fodder group will develop an action plan of integrating fodder trees / fodder into their farming systems. The plan may also include common lands, tank-beds and leased in land for raising fodder.



Discussion could not take place on this subject for lack of time

Networked Backyard Poultry:

After the presentation, Collector asked WASSAN and MMS team to share the poultry experiences in the Zilla Samakhya. ZMS members can explore the possibilities to purchase the chicks from the project villages. She said now all the training budget has been given to ZMS and there is a need to organize exposure visit for ZMS members on this initiatives.

Action points	Roles / Tasks			
	DWMA	DRDA-IKP	AH Department	WASSAN
Networked Backyard poultry		Organizing an exposure/training program to Zilla Samakhya on backyard poultry	Organising training / providing technical inputs	Sharing the experiences in the ZMS meeting and discussing about the exposure visit, finalizing the date to organize the training program along with DRDA-IKP
Explore possibilities to Initiate chick rearing centres	Facilitating the process of up scaling of this initiative in watershed development programs	Provision of budgets for extending training programs	Providing technical inputs in the training/exposure visit	Exploring options with the ZMS members after the visit

District Collector's Remarks:

Narrating her field visits, the District Collector appreciated the AP DAI program initiatives. She also recollected the field-workshop and reiterated that all government departments will implement their schemes in these mandals and also would upscale the learnings from the APDAI into their departmental programs. Collector observed that there is no simple solution to get over drought, other than utilizing natural resources in a better way.



The following are the salient recommendations made by the District Collector.

1. JD-AH will discuss with WASSAN and plan for distribution of breeding rams and ram lambs in the villages.
2. The learnings from AP DAI to be developed into training modules so that the initiatives can be promoted in the watershed development programs where PE/ livelihood funds are readily available.

3. The AH D taking para-workers' training along with DRDA to give priority to the APDAI project villages and Mandals. There is a need to fix a rate for vaccination services for the sustenance of the para-workers.
4. Subesquent to the *padayatra* by some of the sheep rearers from Kodangal for rights on grazing lands, instructions were given to RDOs to reserve areas for grazing at the request of the sheep rearers. Grazing rights in the forest lands can also be secured.
5. Need to organize similar workshop with DWMA to upscale related interventions in the watershed development programs.
6. Field days needs to be organised in batches to orient watershed program teams and for watershed community.
7. AP DAI cell at DWMA is to be opened up to coordinate the up-scaling activities.
8. WASSAN team to organize trainings and exposure visits to AP Community Based Tank Management Program villages, to take up SRI under tanks. In the first phase 54 tanks have been identified and EE- Nagarkurnool is in-charge of the program. The committee members will visit Nagireddipalli to see the process.

Inputs from AGM – NABARD:

Sri. Suresh, AGM NABARD, shared his views on the initiatives. He suggested that the initiatives can be horizontally upscaled in the NABARD supported WDF-watershed development programs. Training budgets may also be accessed from the existing programs of NABARD. The recently concluded Govt of India scheme on Poultry and Agriculture Marketing Infrastructure Fund are two sources for convergence but their time period has just concluded. In case of any extension of these programs, proposals can be taken up for taking up livestock initiatives. Maintaining that credit flow is important to sustain initiatives, he stressed on the need for effective functioning of SHGs. The AGM would take initiative in talking to the banks for mobilizing credit that is one of the major bottlenecks in upscaling the program.

Dr. Sreeramulu observed that considering the absolute lack of knowledge on “how to invest in livestock sector other than industrialized production” the current initiatives, their relation to livelihoods and the scope for investment on it are important.

JD, AH in his concluding remarks assured that the department would give full support to the community based vaccination program. For the project mandals *deccani breed* would be given priority. The breeding rams can be sourced from good tracts in Maharashtra. A modal sheep market is being established in Bhutpur. Fodder development in tank bed areas can be taken up in the project mandals immediately and the department would provide all necessary help in developing perennial fodder plots.

All the participants shared their observations in general.

Dr. Vijay Sekhar Reddy, AD, Sheep summarized the main conclusions of the workshop and thanked all the contributors and participants; the points summarized are as follows:

1. Veterinary doctors in the three mandals to hold monthly meetings with CBO representatives, to be scheduled on a fixed date. The logistics will have to be taken care by the MMS / WASSAN



2. Only Deccani Rams will be given under the CM's Jeeva Kranthi program and the available subsidies will only be used for Deccani sheep.
3. The need for creating peak-immunity during the vulnerable periods is critical as it was observed that fixed seasonality in disease incidence has changed due to changing rainfall. The VAS will take up vaccination programs in the model suggested as per the disease control action plans of the department.
4. As VBRI is strengthened now, there is no shortage of vaccines except for FMD.
5. The department would seek a revolving fund for this purpose from DWMA.
6. All the support would be extended to mandal level fodder bank by the department and efforts would also be there for promoting perennial fodder plots.
7. Fertile eggs can also be a source of promoting the backyard poultry.

The workshop concluded with vote of thanks.

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Annexure – 1:
Schedule of the Programme

13th March 2008: Field visit

Time	Subject/Activity	Initiative	Place/Village	Facilitator
8:30 AM	Interaction with sheep rearers	Sheep breed improvement program	Suraipalli village of Dowlathabad mandal	B. Rama chandrudu / Bichanna Yadav
11:30 AM	Interaction with Goat rearers	Organising goat rearers	Dowlathabad Village & mandal	Bhagya laxmi & B. Janaki Ram
1 PM	<i>Lunch at Dowlathabad Village & Mandal</i>			
2 PM	Interaction with Fodder groups	Community managed Fodder banks	Gokafasalwad village of Dowlathabad mandal	Gopal and Bhagya laxmi
3:30 PM	Interaction with Livestock holders	Livestock vaccination services	Gokafasalwad village of Dowlathabad mandal	Gopal and Bhagya laxmi
5 PM	Interaction with chick rearers	Backyard poultry	Gundlapalli village of Kosgi mandal	Venkatappa and Bhagya laxmi
7 PM	Consolidation			

14th March 2008: Workshop at JD AH training centre, Mahabubnagar town

Time	Subject/Activity	Presentation	Facilitator
10:30 AM	Registration		B. Janaki Ram
	Introductions		B. Ramachandrudu
11AM	Objective of the workshop		Dr. Piedy Sri Ramulu
11 AM to 11:30 AM	Overview of livestock situation in Mahabubnagar district		Dr. Ramchander, JD- AH department
	Tea break		
11:30 AM to 1 PM	Presentations on each successful experiences		Dr. Venkateshwarlu, Additional Director (Production), AH Dept.
	Sheep breed improvement program	B. Rama chandrudu /Bichanna Yadav	
	Organizing goat rearers	Bhagya laxmi and B. Janaki Ram	
	Community managed Fodder banks	Bhagya laxmi and Jaya	
	Livestock vaccination services	Bhagya laxmi and Dr. AVM Rao	
	Backyard poultry	Bhagya laxmi and Janaki Ram	
1 to 2 PM	Lunch		
2 to 3 PM	Discussion and reflections on upscaling process		A. Ravindra / Dr. Venkateshwaru

3 PM to 4 :30 PM	How to take the initiatives forward in different programs		Dr. P. Sri Ramulu / Dr. Ramchander, JD- AH, Mahabubnagar
3 to 3:30 PM	Watershed development – reflections from PD, DWMA	Sri. B. Ravinder, PD DWMA, Mahabubnagar	
3:30 to 4:00 PM	Reflections from AGM, NABARD	Mr. Suresh, AGM- NABARD, Mahabubnagar	
4 to 4: 30 PM	how to take the initiatives forward in IKP --- reflections from the PD, DRDA	Sri. E.V. Narsimha Reddy, PD, DRDA, Mahabubnagar	
4 :30 PM	Reflections from the District Collector	Ms. V. Usha Rani , District Collector	
5 :30 PM	Action points & Consolidation		Dr. Vijay a Shehar Reddy, AD- Sheep

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Annexure – 2:
List of Participants

Sl. No	Name	Designation	Village	Mandal
1	Parameshwar	Mandal Coordinator, Bomraspet MMS	Bomraspet	Bomraspet
2	Mohammadh Vaseem	MTA, Bomraspet MMS	Bomraspet	Bomraspet
3	T.Narsimhulu	Village Activist, Bomraspet MMS	Bomraspet	Bomraspet
4	Ambuja	Village Association President	Bomraspet	Bomraspet
5	Julekhamma	Bomraspet MMS President	Bomraspet	Bomraspet
6	Anjilamma		Bomraspet	Bomraspet
7	Ramulamma		Bomraspet	Bomraspet
8	Ananthamma	Bomraspet MMS President	Bomraspet	Bomraspet
9	Mogulamma		Nagireddypally	Bomraspet
10	Pentamma		Nagireddypally	Bomraspet
11	Bala Krishnaiah	Activist	Timmareddypally	Doulthabad
12	J.Phakeeramma	President, MMS	Neetoor	Doulthabad
13	Narsamma	Secretary	Polkampally	Doulthabad
14	Vijayalaxmi	Tresurer	Gokafasalwad	Doulthabad
15	Ramulamma	EC, MMS	Doulthabad	Doulthabad
16	Venkatamma	EC, MMS	Doulthabad	Doulthabad
17	Narsamma	Secretary for Chicks	Doulthabad	Doulthabad
18	Malkaiah goud	Facilitator	Doulthabad	Doulthabad
19	Buggappa		Gokafasalwad	Doulthabad
20	Prabhakar Joshi	Leader for goat organization	Gokafasalwad	Doulthabad
21	P.Gopal	MC, APDAI	Doulthabad	Doulthabad
22	Srinivas	APM, IKP		
23	Manemma	President, MMS	Lodhipur	Kosgi
24	Anasurya	Treasurer, MMS	Mushrifa	Kosgi
25	Bheemamma	Chick rearer	Chennaram	Kosgi
26	Mallamma	Chick rearer	Gundlapally	Kosgi
27	Lakshmaiah	Village activist	Gundlapally	Kosgi
28	Venkataiah	Village activist	Chennaram	Kosgi
29	Krishnaiah	Fodder group	Lodhipur	Kosgi
30	Kishtaiah	Fodder group	Lodhipur	Kosgi
31	Ananthaiah	Farmer	Bijjaram	Kosgi
32	Anjilaiah	Goat organisation	Mukthipahad	Kosgi
33	Anjilaiah	LPC	MMS, Kosgi	Kosgi
34	Venkatappa	MC , MMS	MMS, Kosgi	Kosgi

Sl. No	Name	Designation	Village	Mandal
35	Dr. Y.Rammohan Reddy	VAS, AH Department		
36	Dr. K.Anil Kumar Reddy	VAS, AH Department		
37	Dr. P.Balakrishna	VAS, AH Department		
38	Dr.P.Narayanaswamy	AD (AH), Gadwal, AH Department		
39	Dr.S.Vijaya Rao	AD (AH), AH Department, Mahabubnagar		
40	Dr. T.Peddi Reddy	DD (AH), Mahabubnagar		
41	Dr.K.R.Umesh	AD (AH), VPC, Mahabubnagar		
42	Dr.B.Jagan Mohan Reddy	DD VPC, Mahabubnagar		
43	Dr.M.V.Reddy	AD (AH)		
44	Dr.Mukundappa	AD (AH), Narayanpet		
45	Dr.T.Vijaya Sekhar Reddy	AD (AH)- Sheep		
46	Dr.Anjilappa	AD (AH) , Shadnagar		
47	Ramchandar	JD (AH), Mahabubnagar		
48	M.Bichanna Yadhav	Guards, Chairman, Network CEO, Kodangal		
49	K.Balappa	Network President		
50	D.Venkatesh	Guards, Coordinator		
51	U.Venkataiah	Guards, Coordinator		
52	M.Chennappa		Suraipally	Dowlathabad
53	Srinivas		Suraipally	Dowlathabad
54	Kishtappa		Nacharam	Kosgi
55	E.V. Narsimha Reddy	PD, DRDA-IKP, Mahabubnagar		
56	B.Ravindar	PD, DWMA, Mahabubnagar		
57	Suresh	AGM, NABARD, Mahabubnagar		
58	Ms. Usha Rani	Dist. Collector		
59	Dr. Piedy Sree Ramulu	Advisor-Livestock, WASSAN		Hyderabad
60	Dr.A.Vijay Mohan Rao	Livestock consultant, WASSAN		Hyderabad
61	A.Ravindra	Secretary, WASSAN		Hyderabad
62	S.Bhagya Laxmi	Program Officer, WASSAN		Hyderabad
63	B.Janaki Rama Rao	WASSAN		Hyderabad
64	E.Jaya	WASSAN		Hyderabad
65	B.Ramachandrudu	Program Officer, WASSAN		Hyderabad

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Participatory Deccani Sheep breed improvement program



A workshop on

Upscaling successful experiences emerging from APDAI

14th March 2008

Participatory Deccani Sheep breed improvement program



Mandal Mahila Samakhyas, AH Department & WASSAN



Why this initiative



OBJECTIVE

- To reduce Inbreeding, cross breeding and high mortality rate in sheep and also to improve the body weights of the sheep

The reasons to get pure Deccani breeding Rams are as follows:

- Inbreeding:** Sheep rearers generally select breeding rams from their existing flocks, resulting in inbreeding and high mortality rate due to increased disease incidence.
- Cross breeding:** Because of the body weights rearers prefer Nellore Breeding Rams in their flocks. The resultant local X Nellore breed lambs are prone to diseases, and over a period of time loose their resistance power. This is resulting in massive deaths.
- The wool:** Pure Deccani breeding coarse wool is useful to make blankets and other material.

The program will benefit to sheep rearers in the villages



Process



- Organising sheep rearers into stakeholders groups (SHGs) and formation of a network
- Thrift and credit activities and linkages with banks, Animal Husbandry department etc
- Identification and trainings to the health activists
- Regular indent process for vaccination and vaccinating all the sheep
- Collection of flock dynamics data on monthly basis
- Preparing monthly health calendar for each flock
- Identification of flock wise issues /problems with a focus on breeding and health services
- Identification of villages and flocks for breed improvement program and start discussion with the rearers



Contd



- Initial discussion with sheep rearers in the villages on the importance of changing breeding Rams
- Discussion and finalization of norms
 - Rearer will contribute 50% of the Ram cost, rest is given from the project/program as seed loan
 - Rearer will give back 2 – 4 Months old Ram to the village organization
 - Rearer will take care about insurance and management of the Breeding Ram
- A group consist 5-7 members came forward to change the Breeding Rams in their flocks from Suraipalli village
- A action plan and project proposal was prepared for the entire activity
- Initially breeding Rams purchased from Nanded district of Maharashtra to get Pure Deccani breeding Rams at the age of 18-24 months.

Contd . . .

- Removing all the existing breeding rams in the flocks after introducing news ones
- Vaccination to the new breeding rams before introducing in the flocks



Ram lamb rearing for breeding Rams

- Identification of poor families to take up ram lamb rearing
- Discussions in the groups to take up ram lamb rearing
- A proposal to rear ram lambs for breeding purpose
- Purchase the ram lambs from Nanded and Belgaum at the age of 4-6 months
- Regular vaccination and feeding and management of the ram lambs
- Linking the ram lamb rearing with the sheep rearers in/around the village, rearers purchased from the ram lamb rearing to introduce in the flocks.



What could be the next steps

- Organise sheep rearers into stakeholder groups
- Develop modalities to get breeding rams and also link with banks for loan etc
- Provide support on transport and other expenses to the rearers
- Regular vaccination and management of the breeding rams
- Regularly changing the rams once in 2 years
- Identification of ram lamb rearers with resources like fodder, water and experience
- Provide necessary support and linkages with banks and AH Department
- Purchase the ram lambs from the rearers (nucleus flocks) to get breeding rams
- Linking ram lamb rearers and sheep rearers
- Introducing breeding rams in the flocks and removing all the existing rams



Department's contribution

- **AH Department**
 - Technical trainings , health services and vaccination, provide Deccani breeding rams to the flocks (flock as unit)
- **DWMA/WDF- watersheds**
- **In the watershed program, out of the productivity enhancement fund the initiatives can be taken up**
 - Formation of groups and breeding rams purchase
- **IKP- DRDA**
 - Formation and Strengthening of groups and Networks
 - Support ram lamb rearing in the women SHGs and also credit linkage
- **Revenue department**
 - Allocate common lands for grazing and drinking water facility



Streamlining community managed livestock health services

Why this initiative

- **Reasons for failure of vaccination program**
- **Lack of awareness** among the community about benefits of vaccination
- **Insufficient deployment** of human resources in animal husbandry department affecting the delivery of services
- **Exclusion of Livestock of the poor** (particularly indiscreet breeds) in general vaccination programs
- **Supply constraints in vaccines** at the district / Mandal levels
- **Lack of community level institutional back up** and linkages with department of animal husbandry.
- **Lack of sustainable service delivery by Para workers** trained by animal health department Institutionalizing vaccination services regularly to reduce the mortality in livestock, anchored in the community based organisations.

Objective of the innovation

Institutionalizing vaccination services regularly to reduce the mortality in livestock from preventable diseases, anchored in the community based organisations.

Process

1. Preparing a list of trained Para workers and group reps with contact numbers if any, it should be with VAS
2. Scheduled meetings with Para workers, sheep, goat CIGs, MMS reps and VAS & GPs. This meeting should be convened by VAS on a fixed day every month.
3. Finalization of vaccination schedule in scheduled meetings
4. Indents will be collected from VOs and consolidated at MMS. Submits to VAS. & livestock groups also give the indent for vaccines to VAS.
5. MMS and livestock groups collect vaccines from local VAS after the indent is sanctioned
6. Schedule of vaccination will be sent to gram panchayath and VO by VAS

Contd.

7. Gram panchayath will publicise vaccination event in the village a day before vaccination, Executive Committee members of the Village Organization play a vital role in this process
8. Vaccination camp organised by the para-worker with help from VO & GP
9. If MMS access Govt vaccines, Para-workers will take only service charges. Otherwise Para worker collects the medicine & service cost.
10. Data on vaccination recorded with the help of local VNA/VA.
11. After completion of vaccination records are submitted to local VAS by the para-worker


Advantages of this model

- Advantage of this model is that the Para worker becomes institutionally anchored with the community based organisation, capitalizing on the already existing institutional base for raising demand for services
- AH Department gets anchored through the CBO platforms strengthening the delivery arms
- Monthly VAS meeting with CBO reps strengthen the AH D and establishes long-term service delivery platform
- AH D can converge with IKP and DWMA on these platforms

Departments contribution

- Dept of AH – Total program is anchored in Dept of AH
- IKP-DRDA, Zilla Samakhya & DWMA
 - Creating livestock health services fund and infrastructure support at MMS level
 - Purchase of vaccines not supplied by the department through revolving fund
 - Promoting livestock Common Interest Groups
 - Providing facilitation system

Networked Backyard poultry enterprises



Networked Backyard Poultry Enterprises

Constraints for backyard poultry to take off

- Regular availability of chicks
- Higher disease incidence, though preventable – absence of access to vaccination services and health care
- Low or no marketable surplus generated to give an impetus
- Absence of networked markets when there is surplus
- Streamlining the supplementary feeding practices
- Evolving effective strategies for dealing with high incidence of predation of birds by cats, dogs and wild life.

Objective

To create additional employment opportunities and income generation to poor women.

Process

- Situational analysis of Villages
- Orientation to staff on chick rearing and backyard poultry(PIAs, WDTs, CCs and Village level activist)
- Identification of Interested SHG members as an entrepreneur for Chicks Rearing
- Preparation of Budget plan
- Submitting DDs to PDP, Hyderabad to supply chicks
- Organizing Training program to entrepreneurs on chick rearing
- Purchasing required Poultry equipment and Feed material
- Establishment of Chicks rearing Center

Process cont..

- Identification of Households who are interested take up Back yard Poultry
- Organizing them in to CIGs and Net Work
- Developing a networked marketing system, both for meat and egg purposes.
- Identification of Health Activist (woman) and imparting trainings on health care to streamlining vaccination services and primary health care for backyard poultry

Department's contribution

- IKP-DRDA- Credit linkage to entrepreneur, trainings budget & opening a program within IKP. Also, establishing marketing system.
- DWMA- Revolving fund to VOs to promote the activity – a sub-activity linked at district level for marketing within watershed programs
- Dept of AH-supply of vaccine, giving technical trainings and extending technical backstopping

Situation:

- Seasonal fodder scarcity is a major problem
- Agriculture and livestock integrated systems are disintegrating as the fodder yielding inter cropping systems are decreasing
- Reduction in the tree based fodder
- Non-diary animals did not receive adequate policy attention
- Community based institutional mechanism for fodder security are not available

Objectives:

- Innovate in integrating fodder production in to the farming system
- Evolve strategies for promotion of rain fed and tree based fodder, mainly catering to the small ruminants
- Evolve community based institutional mechanisms for fodder security

process

- Identifying fodder deficit mandals & villages
- Collecting data on fodder requirements of members and consolidated at VO level
- Members has to pay membership fee RS.100 to SHGs
- Representatives of the VO and CIG finalizes the negotiations and purchases the required fodder from fodder surplus areas in flush period i.e. when prices are low

- VO will give fodder to SHGs on credit, in turn SHG will give it to member
- By this process lean period requirements can be met

Converting fodder scarcity HHs to self sufficient HHs

- Fodder scarcity HHs are organized in to CIG
- Fodder production, management and usage of fodder is carried out by CIGs
- Emergence of a village level platform of a primary stakeholder group for the Department of Animal Husbandry to work with on fodder initiatives

Departments' contribution

- IKP-DRDA : credit linkage if required, CIGs formation, capacity building and institutional support
- DWMA : support to chaffing machines etc, integrating within watershed programs
- Dept of AH: fodder seeds and slips, technical back stopping
- Revenue Dept : Permission to grow fodder in tank beds and commons

PURPOSE

- Organizing goat rearers into Common Interest Groups – ‘Mekala sangalu’ and their loose network.
- Developing tree based fodder in private and common lands
- Institutionalizing services (health care, management and knowledge transfer) for goat rearers within the CIG and its network
- Establishing a system of funding for goats in accordance with the available biomass.
- Establishing collective marketing mechanisms.
- Community based insurance product with reinsurance by company

- Goat rearers organized in to CIGs
- Facilitation support should be there
- strengthen and network the common interest groups
- **Fodder-Biomass/** fodder development plans are prepared for individual lands, common lands in grazing tracts etc. and implemented
- situation analysis

- **Feed:** There is no supplementation of feed/ fodder in goat rearing. Encouraging supplementary feeding
- Establishing mekal pillala samrakshana kendralu (creche)
- Streamlining health services
- Marketing through net work- establishing kids rearing centers
- Community managed insurance

Department’s contribution

DWMA :

- Formation of CIGs in watersheds
- Increasing fodder base in village
- Creating bio mass enhancement fund in CIGs and insurance fund a mandal level

Dept of AH:

- Streamlining health services, technical trainings

Cont..

- IKP-DRDA:
 - Capacity building budget for CIGs & net work strengthening
 - Collective marketing



A workshop on

“Upscaling Successful Livestock Experiences Emerging from AP Drought Adaptation Initiative”

Date: 14th March 2008

Venue: JD AH training centre,
Mahabubnagar District

Handouts

Organized by

Mandal Samakhyas, WASSAN & Animal Husbandry Department

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Participatory Deccani Sheep Breed Improvement Program for Draught Adaptation

OBJECTIVE:

To reduce Inbreeding, cross breeding and high mortality rate in sheep and also to improve the body weights of the sheep

CONTEXT:

Drought and sheep rearing are the two interrelated issues, in the drought conditions, people move towards sheep rearing as livelihood option. Traditionally also the resource poor areas have high number of sheep.

The reasons to get pure Deccani breeding Rams are as follows:

- i. **Inbreeding:** Sheep rearers generally select breeding rams from their existing flocks, resulting in inbreeding and high mortality rate due to increased disease incidence. The size of the rams and body weight are also decreasing over a period of time.
- ii. **Cross breeding:** Because of the body weights rearers prefer Nellore Breeding Rams in their flocks. The resultant local X Nellore breed lambs are prone to diseases, and over a period of time lose their resistance power. This is resulting in massive deaths.
- iii. **The wool:** Pure Deccani breeding rams wool is useful to make blankets and other material. After crossing with Nellore rams, the wool size is decreased and rearers do not get good quality wool to make blankets and other material.

Process:

Situational analysis was carried out in chennaram village of Kosgi mandal and Gokafasalvad of Dowlthabad mandal with sheep rearers. Some of their issues are access to health services, high mortality rate, access to wool in summer, fodder and access to credit services from formal institutions. The rearers were interested to take up breed improvement in the first step in improving their flocks. They have come forward to get pure deccani breeding rams for breeding.

- a. **A Discussion in MMS meeting:** A discussion was held with samakhya members about the issues and what could be the possible interventions.
- b. **An orientation with the Sub committee members:** A orientation meeting was conducted with MMS sub committee members on what could be done for this. Some of the sheep rearers concerns/issues were shared in the meeting. The members suggested the following options for this.
 1. **There are three streams in the process of introducing pure Deccani rams:**
 - i. Introduce the Pure Deccani Breeding Rams in the flocks at the age of 2 years, One Ram for 25 ewes.
 - ii. Purchase pure Deccani Ram lambs at the age of 4 months and rear it for 1 year
 - a. Manage a group of Rams (Around 20-30 in a flock)

- b. One or two Rams reared by women in their daily routine work
- iii. Rearing a flock consisting of Pure Deccani ewes (Around 30-50 in a flock) so as to obtain pure Deccani rams and ewes locally
- c. **Identification of villages:** In the samakhya meeting the members identified Mukthipahad village from Kosgi mandal, Gokafasalvad and Dowlathabad villages in Dowlathabad mandals.
- d. **Identification or rearers for breeding Rams :** The discussion were opened in several villages, the condition is that all the existing rams have be replaced by new pure deccani breeding rams the criteria is followed that first come first basis. Suraipalli and Dowlathabad rearers come forward to improve their flocks with pure deccani breeding Rams. One breeding Ram cost is around Rs. 4000 – 4500 at the age of 2 years.
- e. **Identification of women members for Ram lambs:** PoP families and sheep rearers were identified to rearer the ram lambs. Two members in Dowlathabad and one each from Gokafasalvad and Mukthipahad villages.
- f. **Procuring the Breeding Rams and Ram lambs:** A group of experienced shepherds were taken along with the women members to purchase the breeding Rams and Ram lambs. 20 breeding Rams and 129 Ram lambs were procured from Nanded, Mukhed Govt. farm, Nayagaon market and Belgaum district. One ram lamb cost is around Rs. 1400 at the age of 4 months.
- g. **Management:** Women rearers have been taking care of the ram lambs, they are accessing technical support from Veterinary department and also feeding the ram lambs. Rearers are managing their breeding Rams.

DATA SHOWING THE STATUS

Details of breed improvement program – Rams and ram lambs

Sl. No	Phase	No. of Rams	Place of purchase	Place of release	No. of Rams died	Reasons
1.	Phase -1	9	Nanded	Suraipalli	0	-
2.	Phase -2	6	Belgaum	Dow lathabad	2	Diseases
3.	Phase –3	5	Nanded	Suraipalli	1	Diseases
4.	Phase -4	7	CRIDA, Hyderabad	Suraipalli	0	-

ANALYSIS OF EXPERIENCE

- **Breeding Rams:** Breeding Rams introduced flocks showing good results like minimized mortality rate, body weights improved and also quality of wool have been improving.

Other rearers also willing to buy the similar rams from Nanded and other places

- **Ram lambs rearing:** though the ram lambs were healthy, rearers not able to manage the rams for breeding purpose, lack of knowledge on rearing breeding rams and also access to services like feed, vaccination, insurance are the major problems to this.

DISCUSSION ON RESULTS

- Breeding rams could able to mingle with the flocks and the confidence of the reares have been increased , improved body weights, reduction in the mortality rates are the major issues in this process
- Ram lambs rearing is not showing good results, because of the management practices of the rearers. The activity need to be further improved for taking it forward.

LESSONS LEARNT

- Accessing quality breeding Rams is also a major issue; this is the major constraint in breed improvement program.
- Perception and orientation of the rearers have been changing on Deccani Rams
- Management practices have to be changed in Ram lambs rearing
- Access and improve the grazing fields like horticulture fields, etc
- Access to regular health care and feeding are the major issues in Ram lambs rearing

ISSUES/CONSTRAINTS

Non availability of pure deccani breeding rams at that age (2 years old), cross breeding in many places , procuring the ram lambs , women were not positive /willingness to rear breeding rams.

UPSCALING OPTIONS/OPPORTUNITIES

1. **Breeding Rams:** Ram lambs will be purchased from the rearers by the women groups and after becoming at the age of one year, these Rams will be given to the rearers
2. **Ram Lambs:** After reaching the age of 15 months, the rams will be linked to the sheep rearers in the flocks. This will follow the cycle like – breeding rams --- get few ram lambs --- rearer the ram lambs for one year ---- breeding rams to the rearers.

The idea is to cover all the flocks in the project villages/mandals over a period of 3 years to improve the breed.

Next steps/Upscaling strategy

- a. **Selection of rearers :** The village organization through a special meeting the rearers would be selected. The process is as follows
 - i. **Breeding Rams :** Rearers with the aptitude to change the existing rams and also wanted to go through a process
 - ii. **Ram lambs :** Women in SHGs , who have skills and knowledge on sheep rearing. Preference will be given to POP families in this.
- b. **Procuring the Ram lambs and Breeding Rams:** A plan would be prepared to procure the breeding Rams and Ram lambs. Contacts were made with Shramik Abhivrudhi Sangh

in Belgaum district of Karnataka state. Mukhed taluk of Nanded district in Maharashtra were also contacted to get the information.

A team consist of 4 sheep rearers and 2 MMS women will visit these two places, the teams visited different villages nearby Nanded, Mukhed and Belgaum to purchase breeding rams and Ram lambs after looking into the flock history, diseases etc.

- c. **Insurance to the Rams :** All the breeding rams and Ram lambs have to be insured with the Govt. veterinary hospital

d. Management of Breeding & Ram lambs:

Breeding Rams: Rearers have to be take care of their breeding Rams in the flocks. Regular Veterinary doctor would visit to orient/support them in the process and also changing the existing Rams. The ram's body weights, age and teeth etc details were recorded immediately, once they reach the villages.

- e. **Linkages with flocks:** Rams would be introduced in the flocks after removing their existing Rams

The following data would be collected regularly

1. Body weights: Once in a fortnight the body weights will be recorded by the village activist.
2. Feed and fodder: A separate register will be opened to record the feed details. The rearer will purchase feed from the market and feed regularly
3. Medication and vaccination: A separate register shall be opened to record the medication and vaccination process in the field.

* * * * *

Annexure - 1

The following are the options in breed improvement in sheep

1. Introduce the breeding Rams in the flocks at the age of 2 years
2. Purchase pure breeding Rams at the age of 4 months and rear it for 1 year
 - a. Manage a group of Rams (Around 20-30 in a flock)
 - b. One or two Rams reared by women in their daily routine work
3. Rearing a flock consist of pure Deccani ewes (Around 30-50 in a flock)

	Ram lambs of 2 years+ old	2.a). Ram lambs of 4 months + old	2.b). One or two Rams reared by women (4 m +)	Pure Deccani breed (Ewes rearing)
Primary stakeholders	Sheep rearers	Women from POP families	Women from SHGs	Women or men , who knows goat/sheep rearing
Number of Rams/sheep required	1 Ram for 25 ewes	A flock consist of 30 Rams	1-2 Rams	A flock of 30-50 ewes and 2 Rams
Cost per one Ram	Rs. 3000 to Rs. 3500/average	Rs. 1300 to Rs. 1500	Rs. 1300 to Rs. 1500	Rs. 1300 to Rs. 1500
Feeding	As part of their flock	Take lease a mango orchard or any other	In the fields	Take lease a piece of land/Mango orchard or any other
Management	As part of the flock	Has to be taken care by the rearer	It is not a big issue	Has to be taken care by the rarer
Health services	Easy to access in the flock	Easy to access for the flock	Difficult, but it will be taken care by the women	Easy to access for the flock
Funds to launch the program	50% by the rearer and 50% as project contribution	10% by the rearer and rest from the project	10% by the rearer and rest from the project	10% by the rearer and rest from the project
Loan/recovery	Rearer has to give back xxx rams after one year	Loan from the VO and some part from BASIX	Loan from the VO and some part from BASIX	Loan from the VO and some part from BASIX
Availability in the markets	Difficult	Easy	Easy	Easy
Institutional structure	Rearer--- CIG---- VO---MMS	Women ----SHG---- Vo---MMS	Women ----SHG---- Vo---MMS	Women ----SHG---- Vo---MMS
Economics	Mixed in the flocks -	Rs. 2500/per Ram	Rs. 2500/per Ram	Rs. 2500/per Ram

* * * * *

Community managed fodder bank

SITUATION:

- Seasonal fodder scarcity is a major problem
- Agriculture and livestock integrated systems are disintegrating as the fodder yielding inter cropping systems are decreasing
- Reduction in the tree based fodder
- Non-diary animals did not receive adequate policy attention
- Community based institutional mechanism for fodder security are not available

OBJECTIVES:

- Innovate in integrating fodder production in to the farming system
- Evolve strategies for promotion of rain fed and tree based fodder, mainly catering to the small ruminants
- Evolve community based institutional mechanisms for fodder security

PROCESS:

- Identifying households facing fodder scarcity particularly from March to June
- These households are formed into a common interest group (CIG); they open a bank account for the CIG and each household pays membership fee of Rs. 150-200 to the CIG account.
- Member wise data was collected related to number of animals, land holdings, fodder availability from their own fields, quantity of fodder deficit and approximate time of need. The data is consolidated at the CIG level.
- The fodder group gives a requisition to the VO for fodder as seed capital.
- VO gives fodder in the form of seed capital from out of the project budget.
- CIG representatives take responsibility of searching for sources of fodder and negotiate with the sellers
- Representatives of the VO and CIG finalizes the negotiations and purchases the required fodder
- Member should enter in to an agreement with CIG for loaning fodder. The CIG gives fodder to the member on the following terms :
 - Repay in kind at the rate of 1: 1.5 times at the time of Kharif crop harvesting (this is a local practice called “*naagu*” which is used in seeds exchange.
 - If the member is not in a position to repay fodder ,they can pay cash based on the cost of the fodder in season (after crop harvesting)
 - Farmer has to grow fodder (the seeds are given on *Naagu* from CIG) in their plots. This can be as inter crop in rain fed crops or pure crop in irrigated areas. The CIG access fodder seed on subsidy from the animal husbandry department.
- CIG should get land to stock the fodder which is repaid (panchayath land or land will be given for 3 yrs with willingness of individual)
- The group members distribute the fodder thus, pooled among themselves based on the quantity required.
- Planting tree based fodder species on bunds and areas where crops can't be raised in their own fields

- Fodder group members grow fodder as a group in the tank beds lands. MMS and VO helps in getting the land on lease.
- Fodder is to accumulate with the farmers returning one and half times the fodder loaned. Each farmer is compelled to produce fodder or procure it during harvesting time when the price is lower to repay to the group.
- Next year if needed, the group would purchase fodder for the coming lean period.

A Case:

S. No.	Name of the village	No. of members	Total quantity of fodder (80kg=1 bigu)	At what time	Quantity of fodder TO BE repaid	Time	Availability of space for stocking
1	Gokafasalbad	17	3520 kg-jow ar straw 1600 kg- paddy straw	April- May	5280 kg-jow ar straw 2400kg-paddy straw	Dec- Jan	YES
2	Chellapur	10	3360 kg-paddy straw	-do-	5040kg-paddy straw	Dec-Jan	YES
3	Lodhipur	10	1600kg-paddy straw 800kg-jow ar straw	-do-	2400kg-paddy straw 1200kg-jow ar straw	Dec-Jan	YES

CONCLUSION:

1. SHGs and its federation's platform can be used to form alternate institutions for fodder security.
2. Evolving institutional mechanisms at community level for fodder security
3. Emergence of a village level platform of a primary stakeholder group for the Department of Animal Husbandry to work with on fodder initiatives (instead of working with individual farmers when they approach the department).
4. Livestock number could be increased by increasing access to fodder by allocating water and land. This can also be a potential means of increasing livestock assets for the landless.

In conclusion, the SHGs and their federations have substantial potential to provide an institutional basis for addressing the livestock issues related to the livelihoods of the poor. The experiences shared here, provide substantive evidence in this regard. The Animal Husbandry department suffering acutely by lack of adequate human resources and organizational reach out can work with the SHG federations to reach out to the poor. This strategic shift however, entails a reorientation of the organisation. The experiences shared here also suggest the need for expanding the scope of livelihoods related livestock programs to creating access to fodder, establishing institutions and addressing real constraints. The exclusive focus on 'distributing livestock' and department centered health services delivery must change for these programs to make a substantial impact on the poor¹

Organizing Goat Rearers and Establishing Institutionalized Service Delivery Mechanisms

(Fodder, health services, Management, Accessing Assets and Marketing)

PROBLEM STATEMENT:

Goats, though commonly accepted as a poor households only liquid asset, are seen as a 'problem' by many and in effect, there is not much support for this largest poor-women's enterprise. This initiative attempts to establish the services and knowledge required for easing the constraints, enabling better access to services on the institutional platform. It aims at evolving a networked goat enterprise based on a foundation of village level common interest groups.

PURPOSE

- Organizing goat rearers into Common Interest Groups – '*Mekala sangalu*' and their loose network.
- Developing tree based fodder in private and common lands
- Institutionalizing services (health care, management and knowledge transfer) for goat rearers within the CIG and its network
- Establishing a system of funding for goats in accordance with the available biomass.
- Establishing collective marketing mechanisms.
- Community based insurance product with reinsurance by company

ACTIVITIES TAKEN UP:

Organizing Goat Rearers and Institutionalizing Services:

- Goat rearers are organized into 13 Common Interest Groups in 13 villages covering about 129 numbers of households and 1491 number of goats. Each member contributed Rs.150 to the common fund of the group. (see table below)
- 9 Community Resource Persons are identified from the women leaders to strengthen and network the common interest groups. They are given specific institution building tasks till the network of CIGs are formed.
- An initial situation analysis was done in two workshops with the goat rearers. Biomass availability, accessing health services, predation problem and deaths due to diseases, marketing and lack of assets were identified as major problems.
- Based on the situation analysis and subsequent discussions with the research organizations the following main objectives are emerging for the groups to achieve:
 - Increasing birth weights of kids
 - Increasing slaughter weights to reach about 18 to 20 kg live weight of the animal
 - Reduce kid-mortality by introducing better kid-management practices and services
 - Establish supplementary feeding mechanisms for pregnant does, kids and slaughter animals by facilitating the groups to lease in lands for raising supplementary fodder and planning for planting fodder trees in private and common lands.
 - Establish collective marketing of quality goats initially at the network of CIGs level. The same may lead to establishing a small rural abattoir in course of time to graduate to selling meat instead of live animals with proper market tie-ups.

- Establishing community managed insurance mechanisms for kids up to 4 months, mainly to insure against the risks of predation and ill health.
- To increase the prestige of the goat rearers and provide a collective voice (this came out strongly in the workshop that the goat rearers are powerless when there is an overall negative attitude towards goats).
- Regular meetings of the groups are being facilitated at present.
- A training program on health aspects was organized by the Para-vets trained by the Animal Husbandry department in all the villages for the groups. A set of training resource material was also prepared.

Biomass/ fodder development plans are being prepared for individual lands, common lands in grazing tracts etc. and planted, and the rearers are also encouraged to collect seeds of local tree/ shrub / creeper based fodder material

CIGs (Mekala Sangalu) as on January 11, 2008:

In these villages with in fixed time frame, rearers organized in to groups .So small no. of rearers organized, means 30% is covered .Still 70% rearers are not organized.

CIGs-Goats information:

Sl. No.	Name of the village	No. of CIGs	No. of rearers	No. of goats	No. of kids	Marketable age goats (January)
1	Bijaram	1	17	153	59	32
2	Chennarm	1	11	152	73	1
3	Mukthipahad	1	12	89	24	2
4	Lodhipur	1	8	64	30	10
5	Gundlapally	1	6	19	0	1
6	Gokafasalvad	1	11	249	95	32
7	Doulathabad	1	13	140	57	16
8	Chellapur	1	4	126	19	24
9	Thimmareddy pally	1	17	205	88	40
10	Anthvaram	1	10	110	32	0
11	Nagireddy pally	1	10	102	35	12
12	Bomras pet	1	5	60	20	10
13	Chow dhar pally	1	5	22	16	16
	Total	13	129	1491	548	196

FEED AND FODDER:

Nurseries are raised in 4 villages out of the 15 villages. Plans prepared for biomass plantation based upon members land holding and choice of the species. This is dovetailed into APREGS program. Watering and protection mechanisms to be worked out, these can be in place March onwards

Sl. No.	Name of the mandal	Name of the village	NO. of plants planted
1	Doulthabad	Thimmareddy pally	2163
		Doulthabad bad	2700
2	Kosgi	Bijjaram	2049
		Chennaram	2475
		Gundlapally	1410
3	Bomraspet	Bomras pet	2600
		Nagireddy pally	300
	Total		13697

FEED:

There is no supplementation of feed/ fodder in goat rearing. In the past rearers used to feed horse gram grain and husk but today area under horse gram has decreased (mostly replaced by red gram) and also availability of seed is becoming difficult. Rearers believe that supplementation will increase the body weights. So, they decided to go for leasing in lands to cultivate horse gram for fodder supplementation. 8 CIGs are leased in out of 13 CIGs

Table: Leased-in lands for fodder supplementation

Sl. No.	Name of the Mandal	Name of the Village	No of Acres showing	No of acres Harvested	Remarks
1	Doulthabad	Gokafasalavad	8	0	flowering stage
2		Thimmareddypally	12	6	flowering stage
3		Chellapur	3	3	
4		Doulthabad	2	2	Threshing is in process
5	Kosigi	Mukthipahad	3	3	2 q grain,3 tractor loads of biomass
6		Bijjaram	0	0	Crop loosed
7		Gundalapally	2	0	flowering stage
8	Bomraspet	Nagireddypally	2	0	flowering stage
			32	14	

HEALTH ISSUES:

Major health disorders are because of Parasite load, pneumonia, foot rot and brucellosis infection

HEALTH SERVICES:

- **Regular scheduled vaccination:** Indents will be collected by MMSs from different institutions, will be sent to Department of Animal Husbandry, Vaccination services are outsourced to group activists will collect service charges accordingly. Activists trained in different Govt programs
- **Ethno- veterinary services:** Indigenous knowledge (IK) that rearers used to have is eroded because of different reasons. But it is important to have the knowledge to reduce investments on medicines and also helps keeping the anti biotic load on body at low level. For that
 1. Training programs
 2. Required hand holding is needed

In future there is a need to work on this aspect

- **Placing medicine kits in villages to get access to medicine:** Accessing medicines is the major constraint to rearers. To ease the constraint, medicine kits with bare minimum medicines required for frequently occurring health disorders are placed with the Groups. This kit will be given to one person acceptable to all rearers along with a chart that consists of name of medicine, purchase price and sale price. Medicines are sold on price basis on the advice of a trained para-worker. Rearers are paying back De worming medicine cost to CIG.

First aid kit consists of

S. No.	Name of the articles
1.	Hicks Thermometer
2.	Plastic Syringes
3.	-do-
4.	-do-
5.	Cotton wool
6.	Bandage cloth
7.	Avil Inj
8.	Furazolidone Tabs
9.	Terramycin Inj
10.	Vetalgin Inj
11.	Livogen Inj
12.	Nemlent
13.	Terpentine oil
14.	Potassium Permanganate
15.	Boric powder
16.	Ascaal FS
17.	Neoxy Powder
18.	Tr.Iodine
19.	Scissors
20.	Bag

Sl.No	Name of the Mandal	Name of the Village	Medicine kit	Total Members	No of Big goats	No of Small goats	Total goats	Total cost of De worming (Rs.4 per animal) Rs	Members repaid De worming amounts (Rs)
1	Doulathabad	Doulathabad	yes	13	86	62	148	800	400
2		Chellapur	yes	7	90	38	128	436	400
3		Thimmarreddypally	yes	25	180	29	209	778	400
4		Gokafasalavad	yes	23	206	62	268	948	250
5	Kosigi	Mukthipahad	yes	8	45	10	55	200	100
6		gundlapally	yes	8	14	3	17	66	60
7		Lodhipur	yes	6	32	11	43	148	0
8		Chennaram	yes	11	71	45	116	374	331
9		Bijaram	no	12	139	92	232	948	60
10	Bomraspet	Bomraspet	yes	10	48	22	70	280	275
11		Nagireddypally	yes	8	32	10	42	0	0
12		Chowderpally	no	6	24	0	24	0	0
	TOTAL			137	967	384	1352	4978	2276

- **Establishing rural livestock diagnostic centers:** There are no proper facilities for diagnosis of livestock diseases. Diagnosis is required for assessing parasite load, identifying type of parasite, anemic condition and brucellosis infection etc. These are the major reasons for kid mortality, abortions and low body weights. Diagnostic centers with capacity to identify these would be established at cluster level in course of action.
- **Regular visits to herds:** A trained person appointed by MMSs who exclusively looks after livestock initiatives in 13 villages, will visit each CIG twice in a month and would develop institutional linkages. It is also proposed to ensure a veterinarian visit one per CIG in a month. Local doctors are extending their support.
- **Kids management:** From the time the flock goes for grazing till the time they return, the rearers keep their kids in the open space outside the house under bamboo-baskets (pedda jallalu) up to 2 months age.. 9-13 goats will be kept under the basket with limited neem leaves and they change the place daily. Kids used to suckle the milk from does twice a day in the morning and evening.

Because of poor management the health and body weights are affected. After 2 months kids have to go long distances along with mother and the energy the kids acquired by browsing will be exhausted in walking long distances. Rearers usually sell the kids at the stage of weaning at low prices, reasons being:

1. Lean kids with low body weights
2. Keeping the kids increases the flock size making it manageable

If the rearers do not have elders at their homes to look after the kids, they carry the kids along with mother goats or they sell them off. So the interventions are needed for this are

1. Opening kids- Crèche centers
2. Feed Supplementation
3. Grounding kids rearing units

It is decided that by-products and grain from leased in lands can be used in crèche centers

Grounding kids rearing units: Purchasing the kids from rearers, rearing them for 6 months (i.e. at age of 8 months) and selling them for slaughtering. Since some risks are involved in this period an insurance product would be immense help. Members can get good price by selling goats of 6 to 8 months age. Basix came forward to finance the units

INSURANCE:

Collaboration with BASIX in preparing a community based insurance product with reinsurance by company and establishing the community based systems in claim processing etc

NEXT STEPS:

A comprehensive model of organizing and addressing the issues of goat rearers is thus, emerging. The prospects of establishing a network of all goat rearers in the mandals may happen in a shorter time than expected. The services will be streamlined along with the institutional strengthening. Action programs are being developed to achieve the objectives set-forth (detailed earlier in this note) with the goat rearers.

The focus in the coming months will be on establishing/ enhancing fodder base for goats, which when taken up by the rearers will increase their prestige.

Linkages will also be developed with the financial institutions, insurance and health services for the required help and support in future.

The agenda is important, as goats are the singular low risk assets with assured and highly liquid markets with high value.

Linkages are being established with National Research Centre for Meat (NRCM, of ICAR) and Meat Development Corporation for future work related to marketing of goats/ meat.

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Streamlining community managed livestock health services

SITUATION:

Poor coverage of livestock in regular vaccination program and draught animals, goats, poultry and sheep has very poor vaccination coverage. Loss of animals due to preventable diseases is quite high.

REASONS FOR FAILURE OF VACCINATION PROGRAM

- Lack of awareness among the community about benefits of vaccination
- Insufficient deployment of human resources in animal husbandry department affecting the delivery of services
- Exclusion of Livestock of the poor (particularly indiscreet breeds) in general vaccination programs
- Supply constraints in vaccines at the district / Mandal levels
- Lack of community level institutional back up and linkages with department of animal husbandry.
- Lack of sustainable service delivery by Para workers trained by animal health department

OBJECTIVE OF THE INNOVATION

Institutionalizing vaccination services regularly to reduce the mortality in livestock, anchored in the community based organisations.

INSTITUTIONS:

While Federations of SHGs (MMS) anchors the program and provides linkage with Animal Husbandry department, the program at the village level would be taken up under the aegis of the Gram Panchayat. The actual task of vaccination is done by trained para-workers against a service charge & cost of vaccines, if purchased.

Why MMS?

- Strong functional institutions
- Coverage extends to nearly 4000-4500 members organised into about 250-300 SHGs
- Legitimacy in the villages as they also have linkages with the government
- Linkage with line departments
- MMS have their own staff paid from their monthly interest earnings.
- If needed, new forms of common interest groups can be developed as new institutions

PROCESS

The critical operational process entails MMS in collecting and aggregating indents from village organization (SHGs federation at village level) for required vaccination, compiling the indents and submitting it to dept of AH to source vaccines that are supplied by the Government or purchasing them in bulk. Gram Panchayat and the Village Organisation fix and announce the camp date for vaccination. This interaction is facilitated by the para-worker. This will be informed to the local veterinary doctor. On the scheduled date, the para-worker attends the camp along with an assistant from Village Organisation who collects the service charges and vaccine costs, if any. The para-worker is paid the service charge while vaccine costs are reimbursed to the MMS.

PROCESS STEPS:

- Analysis of existing non- functioning Para-vet system
- Para-workers identified and trained/ refresher trainings are also organized
- Livestock details collected village wise and also using secondary data
- Collect indents from villages and consolidate them at mandal level
- Indent submitted to local veterinary doctor (VAS) with a copy to JD (Animal Husbandry) and AD (AH)
- Pursuing the progress on indents and supply of vaccines with the AH department
- MMS collects vaccines from local VAS after the indent is sanctioned
- According to vaccination schedule, MMS organize a refresh training to Para-workers involving local VAS as resource person
- Terms and rates for vaccination service discussed and fixed with the Para-workers
- MMS out source service delivery to group of trained Para-vets, while they pool the indent
- Para –vets and MMS staff organizes special meetings of VOs, invite Sarpanches and decides the date, time, Place and medicine cost and service charges of the vaccination.
- The Gram Panchayat publicizes the event in the village (tom-tom) – the date, time, Place and medicine cost and service charges of the vaccination are publicized a day before vaccination. Executive Committee members of the Village Organization play a vital role in this process.
- Vaccination will be done between 6 am to 11 am, Para-workers are going to villages in early hours with required equipment (syringe cost borne by Para-workers)
- Data recorded with the help of local VNA/VA. Data consists of name of the village, name of the farmer, type of animals, number of animals, service charge paid
- The person who records the data gives a token to the farmer and the Para-worker provides vaccination after collecting the token. Token is proof of payment for vaccination charges. Actual payment for the service by the farmer was the most difficult process in the earlier system.
- If MMS access Govt vaccines, Para-workers will take only service charges. Otherwise, like in the case of FMD they charge for vaccine as well as for the service rendered. Cost of the Medicine charges will be paid back to MMS, who invests on them initially purchasing in bulk.
- After completion of vaccination the data is submitted to local VAS

PRI's ROLE:

Being a governing body of the village, its mandate is to provide basic amenities to livestock. And also Gram Panchayat has access to Government funds. In future PRIs can play great role in such programs.

The impact of regular vaccination would be visible in case of outbreaks. The reduction in mortality and morbidity would be visible in the course of time.

CONSTRAINTS AND LESSONS:

1. Sustainable delivery of services is possible by para-workers system through community level institutions. The demand during the time of vaccination is very high and needs trained personnel. At this scale, shortage of trained para-workers is strongly felt.

2. The present indenting system, though agreed by the department is taking time and much follow up. If the department opens up a bulk-window for providing vaccines based on a direct indent by the MMS (with the counter signature of the VAS) at the JD (AH) office, the process would be simplified.
3. Vaccines for FMD: FMD vaccines are not prepared/ supplied by the department. The time available between detection of incidence of FMD and government response is very short and most often the reach is very poor. Purchasing FMD vaccines for larger herds is expensive. Appropriate measures to finance FMD vaccination are still to evolve.
4. As the para-workers earn substantial wages during the operations and this incentive is expected to drive the whole operation on the platform of SHG federations. However, an agency function to facilitate MMS to initiate vaccination program at the right time is much needed.

CONCLUSIONS:

The SHGs and their federations are present in the entire state of Andhra Pradesh. These community based institutions can provide an organisational basis for institutionalizing vaccination services at the community level with proper linkages with Gram Panchayat, para-vets and animal husbandry department. The program can be scaled up easily.

Advantage of this model is that the Para worker becomes institutionally anchored with the community based organisation, capitalizing on the already existing institutional base for raising demand for services

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Networked Backyard Poultry Enterprises

Rearing the chicks in the backyard is an age old practice of the rural poor. The chicks grow by scavenging in the backyard and fetch supplementary income to the women. With the advent of the new breeds such as Vanaraja, Giriraja and Gramapriya, among others, several attempts were made to promote backyard poultry as a supplementary activity in rural poor households. The features of these new breeds are - increased egg laying capacity, non-brooding nature, plumage like in the native birds, quick gain in body weight and colored eggs. These features increased the suitability of these new breeds to backyard poultry.

A preliminary analysis of the situation and of some experiences in the state has shown the following constraints for backyard poultry to take off:

- Regular availability of chicks
- Higher disease incidence, though preventable – absence of access to vaccination services and health care
- Low or no marketable surplus generated to give an impetus
- Absence of networked markets when there is surplus
- Streamlining the supplementary feeding practices
- Evolving effective strategies for dealing with high incidence of predation of birds by cats, dogs and wild life.

Attaining a marketable surplus was identified as a major constraint for the backyard poultry to take off as an individual household activity; reaching a volume of production is seemingly difficult. The earlier initiatives were mostly restricted to providing the birds (8+2 units) to households; without much streamlining the backward and forward services.

The backyard poultry initiative emerged in the above context and from out of the situation analysis in the program villages. It is expected that the initiative could generate about Rs.2000/- per annum potential supplementary income to the household; and being a liquid asset, it can generate useful assets for women. The social capital base provides an opportunity for networked backyard poultry enterprise.

Collaboration with the national research institute – ‘Project Directorate on Poultry’ and Veterinary University is established for supply of chicks, training and support.

The backyard poultry initiative focuses on the following:

1. Aiming at a constant bird population of 10,000 - in the 15 program villages with an annual production of about 10 lakh eggs of which, at least 25% could be marketed.
2. Streamlining the chick rearing centers as a business activity of women headed households
3. Streamlining vaccination services and primary health care for backyard poultry
4. Developing a networked marketing system, both for meat and egg purposes.

The objective is to create additional employment opportunities and income generation to poor women.

PROCESS

The 3rd and 4th cycle of chick rearing is presently going on. A collaborative agreement has been made with the Veterinary University for trying out 3000 birds belonging to a new egg-laying

breed with completely desi germplasm. The costs of 1st cycle were mainly borne by the project and the returns/ recovery of the costs are used by VOs for the other rounds. Based on the lessons, new initiatives are being tried in each cycle. The lessons from the first two cycles are detailed in the next sections.

For the 3rd cycle and onwards, it is decided that specific households will be targeted with a unit size of 10 birds and networked. During the 1st and 2nd cycles attempt was made to streamline the chick rearing units as business units.

The process emerging from the experience of the 3 cycles is as follows:

- The Village Organization identifies women for chick rearing centers in consultation with Mandal Mahila Samakhya; preference was given for the poor single women.
- Rearers identify an existing vacant house suitable for chick rearing; necessary precautions (ventilation, safety etc.) are taken.
- The demand from the three mandals are aggregated and a bulk-order is placed with the Project Directorate, Poultry, Government of Andhra Pradesh for chicks and payment made.
- Rearers are given orientation and training on chick rearing.
- Necessary infrastructures – brooders, feeders and waterers are arranged in the centers – the first cycle investment is still carried forward.
- Feed required for the rearing centers is mixed at the mandal level after procuring necessary ingredients. (for the 1st cycle- feed was purchased from market, 2nd cycle purchased from PDP and also prepared locally, and from the 3rd cycle feed is mixed locally after purchasing the ingredients).
- The centers are adequately prepared to receive the chicks
- On the delivery date 2 day old chicks (with one dose of vaccination complete) are picked from PDP and distributed to the centers. The cost of each chick with transport is around Rs.12/-.
- MMS provides both chicks and feed as a loan to the rearing centers.
- Each center rears about 200 to 400 chicks depending on the capacity and local demand.
- Some women health workers (for poultry) are trained in chicken vaccination. They carry out vaccination for the chicks.
- An attempt was also made to vaccinate all the birds in the village with help from the Animal Husbandry department. The women collect service charges for vaccination. There is varying response for this and since the amount collected is low, it is decided that the costs will be loaded into the price of chicks and entire village will be covered for vaccination; this needs to be further streamlined with experience.
- The trained animal health worker at the project level (in one of the mandals) regularly visits the centers and collects information and provides advice.
- After 6 weeks the chicks are sold. The price will be set duly taking into account the costs of all the rearing centers. The price is usually between 35 to 55 Rs. per chick varying with each cycle; mortality and feed cost are the major determinants of costing.
- Loan is repaid by the women maintaining the rearing centers after the chicks are sold out. Net profit ranging from Rs.450- 3000 depending on number of chicks reared and price realized. The mortality rate in the rearing centers is reduced from about 15% in the first cycle to around 5% during the 3rd cycle. The repaid amount is used again as start-up capital for the next cycle.

CHICKEN FEED

Reducing the costs of feed by about Rs.8 makes the chick rearing centers and the backyard much more competitive in the markets. The feed preparation is now internalized in the village but the growth rates have reduced. Several ideas are being tried in the next cycles that includes, developing insect based feeds mixtures, feeding leaves etc., but, carbohydrate substitution is proving to be a major bottleneck.

Another attempt is to internalize the feed requirements into the farming systems thereby reducing the paid out costs.

Feed Formula: (for 1000 chicks)

Sl. No	Feed Formula	Kosgi (Kg)	%	Doulthabad (Kg)	%	Bomraspet (Kg)	%
1	Maize	200	19.75	0	0	300	46.36
2	Jowar	300	29.64	300	46.36	0	
3	Deboiled rice bran	200	19.75	130	20.1	130	20.1
4	Soyabean meal	89	8.79	63	9.74	63	9.74
5	Sunflower cake	183	18.1	126	19.47	126	19.47
6	S. Grit	14	1.38	10.5	16.22	10.5	16.22
7	DCP	13	1.28	9	1.39	9	1.39
8	Salt	4.5	0.44	3	0.46	3	0.46
9	DL.Meth	1.26	0.12	0.882	0.14	0.882	0.14
10	Lysine	2.318	0.23	1.622	0.25	1.622	0.25
11	Trace miller	0.935	0.09	0.658	0.1	0.658	0.1
12	AB2D3K	0.2	0.02	0.14	0.02	0.14	0.02
13	B.COMP	0.25	0.02	0.175	0.02	0.175	0.02
14	Coccistac	0.5	0.05	0.35	0.01	0.35	0.01
15	Antibiotic	0.5	0.05	0.35	0.01	0.35	0.01
16	Choline	0.6	0.06	0.42	0.01	0.42	0.01
17	Toxine binder	2	0.19	1.4	0.22	1.4	0.22
	Total	1012.063		647.497		647.497	

COMMUNITY MANAGED CHICK INSURANCE

- ❖ A premium of Rs.5 per bird and the same entered into a register with the VO
- ❖ Insurance is for 6 months and covers only predation

- ❖ Loss of each bird is to be reported to the VO, entered into the register. The same would be verified by the VO committee first hand
- ❖ At the end of 6th month, the total amount accrued would be divided among the families owning the birds which were predated. Insurance thus, would cover the cost of purchasing the chicks
- ❖ In future it would be networked at MMS level, where risks can be shared across villages and pay out can be higher

HOUSING FOR BACKYARD

Housing is proving to be a major constraint in the backyards. The problem is much more severe for those who do not have own houses. Many a time due to the problems of predation and theft chicken are housed within the residential rooms causing greater inconvenience. The local housing methods are documented and from the 3rd cycle onwards, when the unit size increased to 10 birds in each household, proper housing initiatives will be planned. Collective penning models will also be tried.

ACHIEVEMENTS AND LEARNING:

1st Cycle of the Program:

The first cycle of the program was initiated in partnership with the federation of SHGs. The above constraints are addressed in the following ways:

Supply of Chicks: (3500 birds)

- Establishing 'chick rearing units' as small women enterprises to supply chicks constantly.
- The Federation of SHGs' identified 13 poor single women households for establishing chick-rearing centres.
- The chick-rearers identified a vacant room from their relatives / hired it; all protective arrangements and infrastructure (feeders, waterers, brooders etc.) are organized.
- 2 day old chicks are purchased from Project Director Poultry (PDP, Hyderabad)
- About 200 to 400 birds were reared in each centre.
- Feed centrally purchased and distributed
- Poultry Vaccinators – some women are trained in poultry vaccination by Animal Husbandry department. They provided vaccination services for all chick-rearers.
- Chicks reared for one and half months period – attained about 750 to 900gms body weight
- Project Directorate, Poultry provided advice at times when consulted

COMMUNITY INSURANCE:

Unless predation issues are identified, the initiative may not go forward. A mechanism of Community Insurance for Chicks (5weeks to 7 months age) has been developed.

- The buyer pays Rs.5/- per chick as insurance against predation for 6 months.
- The money would be deposited with the federation of SHGs.
- Any loss of bird due to predation should be reported to the federation.
- A small committee (from SHG) would assess the claim and register it.
- At the end of 6 months all claims will be looked at
 - If the total claims are below 10% then each claim would be given Rs.35/-

- If the claims are above 10%, the total insurance premium collected would be distributed across the number of proven claims i.e. would get more than the premium but less than the cost of bird.

Many problems in marketing:

- Chicks (not vaccinated, no breed specific, small size, at the most 2 weeks age) are sold in the local weekly market at Rs.25 each; though very small; it has become a reference point for any sale from chick-rearing unit.
- The egg laying potential of Vanaraja would take some more time to be visible (as the chicken given to backyard are still young)
- Few, whose birds are predated setup a wrong communication
- The demand for chicks has not been forthcoming so easily.
- The federation of SHGs tried several ways in selling the chicks: voluntary, sales on loan, sold in other villages etc.
- The cost of rearing chicks in the centres came to about Rs.30 to 35/- sale price between 40 to 45/-
- Mortality rate was about 14%
- Of the 13 units in the first cycle, 2 units were in loss & some earned good profits.

LESSONS FROM 1ST CYCLE:

A participatory assessment with all chick-rearers, VOs and MMS was organized to distil learning.

- The feed cost is higher
- Wastage is higher due to inadequate feeders
- Purchased feed also increased cost
- The size of the unit matters – profits for larger units are substantial
- Higher mortality rates increased the costs per chick
- Density of stocking is high
- One and half month's time (as prescribed by PDP) is not required. Selling after one month may reduce the feed cost and would be able to compete with market rate. Feed consumption rate is higher after 1st month.

2nd Cycle: Re-hypothesizing: 1500 birds – 9 centres

- Reduce the cycle to 1 month
- Focus on reducing mortality (transport of chicks: time, type of transport etc.)
- Do not fix strict time period; if the rearers find a buyer – let them sell (after vaccination is complete)
- The responsibility of selling is with the rearer – no support would be provided in principle
- Mixing of bulk feed locally would be tried
- Have adequate feeders and waterers
- Have all the chicken in the village vaccinated through the Poultry Vaccinators.

The second cycle of rearing was taken up with the above corrections. The following lessons emerged.

LESSONS FROM 2ND CYCLE:

- Cost could be reduced to Rs. 22 to 28/- from the earlier 30 to 35 Rs. Per bird; mainly through reducing the time, reducing wastage in feed, local mixing of feed and reduced mortality.
- Mortality reduced to 4% mainly by better handling of chicks while transport, reduced congestion and increased health care. However, bird mortality is higher during the period of selling the birds.
- All chicks are marketed by rearers themselves. Chicks were also taken to weekly market fairs and nearby villages and sold.
- Mixing of bulk feed- reduced cost of feed from 13 Rs – 9 Rs per kg.
- Rs.500 – 800 profit per centre in one month – but two centres were in loss, mainly because of distress sale at low price.
- Rearers also returned capital investment with 6% rate of interest.
- Women vaccinators emerged, who have vaccinated birds in the entire village at cost of Rs.0.25 per bird.
- Some birds, which are foraging near saw mills/ where scrub wood is logged, gained higher bodyweights very fast.

Agenda for 3rd Cycle:

The third cycle is now being planned. The overall objective is to reduce the cost of chick-rearing to about 18 to 22 rupees per bird with about 600-700 gm body weight in one month, would improve profitability substantially. The following experiments are planned to further improve profitability in the rearing centres:

1. Chicks are supplied at PDP (Hyderabad) and transported to project villages about 100 km distant. This can not be reduced as it means establishing a decentralized hatchery.
2. Better health care may reduce the mortality.
3. With increasing the chick-rearing time from 1 month to 2 months and finding ways of reducing feed costs can the birds be directly supplied to meat market?
4. How to move from purchased feed to freely available local feed? Introducing semi-intensive / foraging in the chick rearing centre in the following ways :
 - a. Rearing unit with an enclosure area protected from predators
 - b. Introducing insect based feed: rearing termites / grubs / earthworms within the enclosure area in pits and opening them for open grazing in cycles.
 - c. Raising green leafy vegetables in the foraging area and rotational feeding
 - d. Shifting from cultivated grains in feed-mix to freely available plants like *Casia tora* and trying out various other systems.
 - e. Introducing the bulk-feed grains into farming systems : two rows of *fox tail millet* / sorghum / maize in the crop systems to produce grain for chicken feed (both for chick-centres and for backyard)
5. Innovations in back-yard poultry housing for the poor not having adequate space to keep birds - to be tried.
6. Labor dependent families (without old people at home) expressed difficulty in keeping the birds in the back-yard as the house would be empty and no one to look after the birds. Can a common 'crèche' type of arrangement be worked out for poultry birds?
7. Can the hatchery be decentralized (with solar power)?
8. Innovative designs to be developed for taking at least 50 to 80 birds to market on bicycles.
9. Many of the birds are consumed during the festivals. Attaining substantial marketable surplus is still a challenge. Specific research on how to arrive at optimal household-stock of poultry in semi-intensive systems need to be worked out.
10. What should be the ratio of foraging area to number of back-yard birds? Can typologies be worked out and standards evolved?
11. What should be the low-(paid-out) cost and nutrient rich feed for supplementation?
12. How to position back-yard poultry in the market? – does its meat or eggs have special nutrient status

or any other marketable traits?
In course of time back-yard poultry pricing should be evolved separately from the prices announced for industrial poultry products.

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