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ALL INDIA COORDINATED RESEARCH PROJECT ON GOAT IMPROVEMENT

Project Coordinator's Report

(2014-2015)

S. K. Singh

Mahesh Dige

केन्द्रीय बकरी अनुसंधान संस्थान, मखदूम फरह, मथुरा उ0प्र0

CENTRAL INSTITUTE FOR RESEARCH ON GOATS
MAKHDOOM, P.O. FARAH – 281122, MATHURA (U.P.)

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Salient Research Achievements

All India Coordinated Research Project (AICRP) on Goat Improvement has been redesigned with modified objectives and technical programmes to accommodate farmers flock for long term genetic improvement under prevailing ecosystems. The project enables conservation of goat genetic resources in their area of evolution and adaptation and explores genetic variations in local breeds through structured and systematic pedigree and performance recording of goats. Presently, thirteen goat breeds and 3 lesser known genetic resources are covered through eighteen centres located across the country which are coordinated through a Project Coordinating Unit located at Central Institute for Research om Goats, Makhdoom, Mathura. Three breeds i.e. Barbari, Jamunapari and Sirohi are being maintained under semi-intensive farming system with optimum feeding to explore their genetic potential in given environment and technologies evoved are taken to farmers field for genetic evaluation. Other breeds viz. Assam Hill Goat at Guwahati, Black Bengal at Kolkata and Ranchi, Gaddi at Palampur (HP), Marwari at Bikaner, Osmanabadi at Phaltan (Satara district of Maharashtra), Pantja at GBPUAT, Pantnagar, Sangamneri at Rahuri, Sirohi at Vallabhnagar (Udaipur), Ganjam at Bhuvaneshwar, Surti at Navsari and Malabari at Thrissur are being improved under farmer's flock in their respective home tract. Each field unit was persuaded to take up additional forth clusters as per revised technical programme of AICRP by the end of the year almost all units have adopted four clusters. A list of approved centre of AICRP on Goat improvement is shown in Table 1.Four units were persuaded to expand their area of coverage in Tribal areas under Tribal sub plan fund of the project. Assam hill goat unit is also operational in NEH region. In the XII plan from year 2014-15 Changthangi goat breed from Laddakh region of J&K was added for conducting research on goats producing Pashmina under cold desert climate. The major thrust of the project is to build up long term capacities of goat keepers through introduction of genetically superior breeder goats, technology transfer, creation of knowledge base, application of health management practices etc for enhancing production and reproduction potentials on sustainable basis.

Table 1. Coordinating Centres of AICRP on Goat Improvement

S.N.	Centre	Location	Purpose
1.	Andaman Goat Unit	CARI, Port Blair	Meat
2.	Assam Hill Goat Unit	AAU, Khanpara Guwahati	Meat
3.	Barbari Goat Unit	CIRG, Makhdoom	Milk & Meat
4.	Bengal Goat Unit	BAU Ranchi	Meat
5.	Black Bengal Goat Unit	WBUV and FS, Kolkata	Meat
6.	Changthangi Goat Unit	SKUAST-K, Srinagar	Fibre and Meat
7.	Gaddi Goat Unit	HPKVV, Palampur (HP)	Meat and Fibre
8.	Ganjam Goat Unit	OUAT, Bhubaneswar	Meat
9.	Himalayan Local Goat Unit	IVRI Campus, Mukteshwar	Meat
10.	Jamunapari Goat Unit	CIRG, Makhdoom	Milk & Meat
11.	Malabari Goat Unit	KV&ASU, Thrissur	Meat and Milk
12.	Marwari Goat Unit	RAJUVAS, Bikaner	Meat
13.	Osmanabadi Goat Unit	NARI, Phaltan (MH)	Meat and Milk
14.	Sangamneri Goat Unit	MPKV, Rahuri (MH)	Meat and Milk
15.	Sirohi Goat Unit	CSWRI, Avikanagar	Milk & Meat
16.	Sirohi Goat Unit	RAJUVAS, Veterinary College Vallabhnagar (Raj.)	Meat
17.	Surti Goat Unit	N.A.U., Navsari (Guj.)	Milk & Meat
18.	Uttarakhand Local Goat Unit	GBPUA&T, Pantnagar	Meat

Objectives and activities of the AICRP on Goat Improvement during XII plan

The improvement and conservation of animal genetic resources is a long term and continuous activity and should be undertaken through structured and systematic breeding programmes specific to the area of evolution of the genetic resource/group through a national policy. Therefore, based objectives, activities and interventions proposed in the programme have been designed keeping long term goals. The objetives are given below.

Objectives

1) To enhance productivity of goat genetic resources of the country in their habitat.
2) To develop germplasm resource centers for goat breeds.
3) To validate and implement breeding, feeding, and health control technologies in the field for improved goat production and health.
4) Capacity building of stakeholders and goat keepers for sustainable and profitable goat husbandry.
5) To determine the role of goat husbandry in livelihood and food security of goat keepers.

Major Activities for the XII Plan

1) Identify niches having valuable goat genetic resources.
2) Identify areas, select and register farmers and goats for pedigree and performance recording, technology validation and interventions.
3) Implementation of animal identification system at farmers flock and systematic and planned performance recording on adequate number of goats (min. 1000 breedable does and their followers) for genetic evaluation purposes.
4) Creation of goat evaluation facility for Genetic Evaluation.
5) Identification of area-wise centers to preserve and conserve goat germplasm
6) Diagnose causes of morbidity and mortality and formulate area-wise preventive health control policy.
7) Identify regional centers to impart training and capacity building of stakeholders including farmers in goat production, health control, forage production, product processing and marketing.
8) Exploit the genetic potential available in native tract of goat breeds through selection of superior goats and distribute them in field for overall improvement.
9) To establish a data bank on goat production, health and nutrient requirements, region-wise with respect to indigenous goat genetic resources.

Table 2. Targets for each unit covered under the project.

Objectives	Measurable Activities	Monitorable target (Success Indicators)	Base value per year	Target per year	Target for project period
Enhance production potential of goat genetic resources of the country in their habitat	Selection of Goat Genetic Resources for base population	12 known and 4 lesser known goat genetic resources	12		16
To develop germ plasm centres for goat breeds	Registration of Clusters and farmers	Selection of 4 village clusters based on availability of goats in habitat of the goat breed	500 adult does	500 adult does	1000 adult does in 4 clusters
	Animal Identification, pedigree and performance recording	Pedigree and production records to evaluate the improvement trend	All adult goats with followers	1000	5000
	Selection of male growers kids on the basis of performance and rear them for buck purpose	Each year approx. 20 bucks will be distributed from project cost	20	10	50
To validate and implement breeding, feeding, health control and product processing technologies in field for improved health and production	Breeding of doe in farmers field	Each year minimum of 70% adult does be serviced	700	700	3500
	Health Coverage with vaccination and deworming etc.	Each year minimum 2000 goat should be vaccinated for major goat diseases of the area	2000	2000	10000
Capacity building of stakeholders and goat keepers for sustainable goat husbandry	Capacity building of goat keepers and stake holders	All adopted got keepers for one week training in a scientific organization	-	50 per unit	250
To determine role of goat husbandry in livelihood and food and food security	Livelihood and food security	Income per family			30%

Major Recommendations of the 14th Annual Review Meet of AICRP on Goat Improvement held at NAU, Navsari (Gujarat) on Sept 29, 2014

i. Institute based units should expedite establishment of multiplier flocks in time frame manner. During current year they should establish at least 10 such units in the breed habitat.
ii. Data on physical and performance characterization of Assam Hill goats and its comparison with Bengal goat.
iii. Proper recording of pedigree and performance data along with animal identification of goats should be seriously done by the Marwari and Ganjam units.
iv. Adoption of management intervention needs to be enhanced at field units to improve production and reproduction efficiency.
v. Performance and pedigree recorded superior kids should be purchased from adopted area through a committee and not through open tender to ensure procurement of goats with good genetic potential.
vi. Money should be utilised as per fund provisions made in the project.
vii. Selection of breeding buck and does should be strictly followed as per the technical programme.
viii. Cryopreservation of semen should be initiated in collaboration with Gynaecology department available in most of the Universities (Bengal, Osmanabadi, Sangamneri, Surti, Marwari, Barbari, Jamunapari, Sirohi).
ix. Efforts should be made to form Goat Co-operative/ Societies / Self Help groups for each breed.
x. Each unit to produce 50 superiors male kids for future buck production.
xi. Units which are not getting RA/SRF as per qualification laid down under technical programme may recruit JRF.
xii. Documentation of findings should be expedited for the benefit of scientific & farmer's community.

Based on these recommendations actins were taken by each of the stake holder which is given in Annexure

ACTION TAKEN REPORT ON MAJOR RECOMMENDATIONS

i. Efforts should be made to include unexplored lesser known goat populations, goat genetic resources of MP, Chhattisgarh, Karnataka and Andhra Pradesh for conservation and improvement.

This issue needs few more centres and additional funds therefore will be included in next plan proposal.

ii. Preparation of Information Management System using common format should be immediately initiated and implemented latest by 31st March, 2015. The PC and Director, CIRG was requested to fill-up the staff already sanctioned for Coordinating Unit and do the needful to get it done on from market.

The information management system is on place and ready for evaluation and release.

iii. **Contractual staff could be appointed from available contingency if there is delay in recruitment of permanent technical staff. However, efforts should be made to appoint sanctioned staff on priority**.

The units are implementing this agenda wherever necessary.

iv. The ADG (AP&B) directed all Units to submit 10 good quality herd photographs of the breed within a period of one month.

Most units have submitted photographs as desired by ADG.

v. Institute based units should expedite establishment of multiplier flocks in time frame manner. During current year they should establish at least 10 such units in the breed habitat.

The institute based flocks are establishing multiplier flocks however this work needs to be further strengthen as progress is not in desired magnitude.

vi. Data on physical and performance characterization of Assam Hill goats and its comparison with Bengal goat.

This work need to be done involving molecular genetics lab and will be taken up in the current year.

vii. Proper recording of pedigree and performance data along with animal identification of goats should be seriously done by the Marwari and Ganjam units.

Efforts are being made to implement animal's identification in above mention units but with little success.

viii. Adoption of management intervention needs to be enhanced at field units to improve production and reproduction efficiency.

This is being implemented by most field unit however institute based units needs to work more in this area.

ix. Performance and pedigree recorded superior kids should be purchased from adopted area through a committee and not through open tender to ensure procurement of goats with good genetic potential.

This is an advice to the units for follow up

x. Money should be utilised as per fund provisions made in the project.

Most of the units are following up this agenda.

Selection of breeding buck and does should be strictly followed as per the technical programme.

This is an advice which should be regularly practiced by all units

xi. Cryopreservation of semen should be initiated in collaboration with Gynaecology department available in most of the Universities (Bengal, Osmanabadi, Sangamneri, Surti, Marwari, Barbari, Jamunapari, Sirohi).

Some units have initiated this work. Since this work involves money and infrastructure facility, modalities are to be developed for implementing this recommendation.

Efforts should be made to form Goat Co-operative/ Societies / Self Help groups for each breed.

This is being implemented by units however this is a long term recommendation and needs further discussion on methodologies to create SHG etc.

xii. Each unit to produce 50 superior male kids for future buck production.

This is being implemented.

xiii. **Units which are not getting RA/SRF as per qualification laid down under technical programme may recruit JRF.**
This is being implemented as per requirement.

xiv. **Documentation of findings should be expedited for the benefit of scientific & farmer's community.**
Documents in local as well as in national languages are being developed.

Budget Allocation and Fund Provisions

For the financial year 2014-15, a total of Rs 350 lakhs was allocated under RE by ICAR New Delhi however Rs. 333.00 lacs were surrendered as Expenditure and salary was less because of re-deployement of the staff by various units.

Table 3. Comprehensive Head wise RE for the financial year 2014-15

S. No.	Head / sub-head	Other than NEH	NEH	TSP	Total
	CAPITAL				**26.00**
1	Works				26.00
A.	Land	0.00	0.00	0.00	0.00
B.	Building				5.00
(i)	Office building	0.00	0.00	0.00	
(ii)	Residential building	0.00	0.00	0.00	
(iii)	Minor works	5.00	0.00	0.00	
2	Equipments	17.00	0.00	0.00	17.00
3	Information Technology	0.00	0.00	0.00	0.00
4	Library books & Journals	0.00	0.00	0.00	0.00
5	Vehicles & Vessels	0.00	0.00	0.00	0.00
6	Livestock	0.00	0.00	0.00	0.00
7	Furniture & fixtures	4.00	0.00	0.00	4.00
8	Others	0.00	0.00	0.00	0.00
	REVENUE				**321.00**
1	Establishment Expenses				**103.00**
A.	Salaries				**103.00**
(i)	Establishment Charges	93.00	0.00	0.00	103
(ii)	Wages	0.00	0.00	0.00	0.00
(iii)	Overtime allowances	0.00	0.00	0.00	0.00
B.	Pension & other retirement benefits	0.00	0.00	0.00	0.00
C.	Loans & advances	0.00	0.00	0.00	0.00
2	Travelling allowances				**16.00**
A.	Domestic TA / Transfer TA	16.00	0.00	0.00	16.00
B.	Foreign TA	0.00	0.00	0.00	0.00

3	Research & Operational Expenses	175	1	10	**186.00**
A.	Research expenses	**0**	1.00	10.00	00
B.	Operational expenses	0	0.00	0.00	00
4	Administrative expenses				**00**
A.	Infrastructure	0.00	0.00	0.00	0.00
B.	Communication	0.00	0.00	0.00	0.00
C.	Repairs & maintenance				**00**
(i)	Equipments, vehicles & others	2.00	0.00	0.00	00
(ii)	Office building	2.00	0.00	0.00	00
(iii)	Residential building	0.00	0.00	0.00	0.00
(iv)	Minor works	0.00	0.00	0.00	0.00
D.	Others (excluding TA)	0.00	0.00	0.00	0.00
5	Miscellaneous expenses				**00**
A.	HRD	0.00	0.00	0.00	0.00
B.	Other items (fellowships, scholarships etc.)	2.00	0.00	0.00	2.00
C.	Publicity &exhibitions	0.00	0.00	0.00	0.00
D.	Guest House – maintenance	0.00	0.00	0.00	0.00
E.	Other miscellaneous	0.00	0.00	0.00	0.00
TOTAL		**322.00**	**1.00**	**10.00**	**333.00**

Table 4: Head-wise Progressive Budget allocation Actual and Expenditure from 2012-15

Head	**2012-13 (Actual)**	**2013-14 (R.E.)**	**2014-15 (R.E)**	**2015-16 (B.E)**
A. CAPITAL				
1. Works	0.00	5.00	5.00	35.00
A. Land	0.00	0.00	0.00	0.00
B. Building				0.00
(i) Office Building	0.00	0.00	0.00	0.00
(ii) Residential building	0.00	0.00	0.00	0.00
(iii) Minor works	0.00	5.00	0.00	0.00
2. Equipment	0.00	3.00	17.00	15.00
3. Information Technology	0.00	0.00	0.00	12.50
4. Library Books & Journals	0.00	0.00	0.00	0.00
5. Vehicles	0.00	0.00	0.00	0.00
6. Livestock	0.00	0.00	0.00	0.00
7. Furniture & fixtures	0.00	2.00	4.00	1.00
8. Others (specify)	0.00	0.00	0.00	0.00
Total Capital (A)	**0.00**	**10.00**	**26.00**	**63.50**
B. REVENUE				
1. Establish. expenses Salaries	**139.33**	**155.00**	**103.00**	**84.00**

i. Establish. Charges-Regular	139.33	155.00	0.00	0.00
ii. Establish. Charges-Arrears	0.00	0.00	0.00	0.00
2. Traveling Allowances	**10.52**	**21.00**	**16.00**	**20.75**
a) Domestic T.A.	10.52	21.00	16.00	20.75
b) Foreign T.A.	0.00	0.00	0.00	0.00
3. Research & Operational Expenses	**124.65**	**160.00**	**186.00**	**275.65**
a) Research	124.65	90.00	0.00	95.65
b) Operational	0.00	70.00	0.00	180.00
4. Administrative Expenses	**0.00**	**0.00**	0.00	**4.00**
a) Infrastructure	0.00	0.00	0.00	4.00
b) Communication	0.00	0.00	0.00	0.00
c) Repairs & Maintenance	0.00	0.00	0.00	0.00
5. HRD	**0.00**	**7.00**	**0.00**	**0.00**
a) Within India	0.00	7.00	0.00	0.00
b) Abroad	0.00	0.00	0.00	0.00
6. Other items, if any, (specify)	**0.00**	**7.00**	**2.00**	**2.10**
Total Revenue (B)	**274.50**	**350.00**	**307.00**	**386.50**
Grand Total (A+B)	**274.50**	**360.00**	**333.00**	**450.00**

Monitoring of Units

The unit were visited by the Director CIRG and I/C PC Unit to evaluate the progress of research work.

Table 5. Monitoring & Evaluation of AICRP on Goat Improvement Units.

S N.	Tour /Visit by Dr. S.K. Agarwal, Director, CIRG April, 2014 to March 2015
1.	Assam Hill Goat Unit, AAU, Khanpapra Guwahati, July 1, 2014 –July 4, 2014
2.	Surti Field Unit, NAU, Navsari, Sept. 27 – Oct 1, 2014
S N.	**Tour /Visit Dr. S.K. Singh, Incharge AICRP on Goat Improvement, April, 2014 to March 2015**
1.	Attended Brainstorming Workshop on Strategies for Enhancing Livestock and Fisheries Production in the State of Chattisgarh at College of Veterinary Sciences and Animal Husbandry, CKV, Anjora, Durg-491001 dated 10/05/2014 to 14/05/2014
2.	Visited Sirohi Field Unit at Vallabhnagar, Udaipur between 16/05/2014 to 17/05/2014
3.	Visited Uttarakhand Goat Unit at GBPUA&T Pantnagar, Nanital to visit AICRP on Goat Improvement Uttarkhandi Goat Unit. June 13-14, 2014
4.	Attended the launching ceremony of AICRP on Goat Improvement Himalayan Unit at IVRI Mukteshwar. June 15, 2014.
5.	Attended Confidential work as Chairman of Committee by ASRB, New Delhi dated 29/07/2014 to 2/08/2014
6.	Visited Changthangi Unit, Leh J&K to supervise the creation of new Unit between 22/08/2014 to 27/08/2014
7.	Attend inaugural ceremony of Uttarakhand Goat Unit at GBPUA&T, Pant Nagar, AICRP Himalayan Goat Unit dated 28/08/2014 to 30/08/2014
8.	Organise XIV Annual Scientific Review Meet of AICRP on Goat Improvement, for the period of 2013-14 on 29th Sept, 2014 at Navsari Agriculture University, Navsari,

	Gujrat.
9.	Attended National Meeting for Registration of Livestock Breeds Committee at New Delhi, dated 20/10/2014 to 21/10/2014
10.	Attended the **Annual Congress and Symposium on 'Indigenous Farm Animal Genetic Resources,** scheduled to be held at Postgraduate Institute of Agriculture, University of Peradeniya, Sri Lanka from 20-24 November, 2014.
11.	Visited AICRP on Goat Improvement units located at Kolkata (Black Bengal) and Guwahati (Assam Hill Goat) from 08/01/2015 to 13/01/15
12.	Took part in NAAS meeting organized for policy planning, New Delhi on 14/01/2015
13.	Attended "12th Agricultural Science Congress - 2015" at NDRI, Karnal, 01/02/2015 to 08/02/15
14.	Attended "International Symposium on Sustainable Management of Animal Genetic Resources for Livelihood Security in Developing Countries & XII Annual Convention of Society for Conservation of Domestic Animal Biodiversity (SOCDAB), Chennai, 11/02/2015 to 14/02/15 and delivered a lead paper.
15.	Visited AICRP on Goat Improvement Units at Ranchi and Bhubaneswar, dated 09/03/2015 to 14/03/2015.
S N.	**Tour /Visit Dr. M S. Dige, Incharge AICRP on Goat Improvement, April, 2014 to March 2015**
1.	Sirohi farm Unit, CSWRI, Avikanagar, Rajasthan, 07.10.2014
2.	Malabari Goat Unit, Thrissur, Keral, 16.02.2014
3.	Surti Field Unit(TSP), NAV, Navsari, Gujrat, 30.09.2014
S N.	**Tour /Visit Dr. P K. Rout, Principal Scientist (AG&B), April, 2014 to March 2015**
	Surti Field Unit, NAU, Navsari, Sept. 27 – Oct 1, 2014
S N.	**Tour /Visit Dr. A.K. Dixit, Senior Scientist (AE), April, 2014 to March 2015**
1	Dr. A.K.Dixit, Sr. Scientist and Shri. S.C.L. Gautam, technical officer of EE&SE section. 14-7-2014 to 22-7-2014. AICRP Sirohi unit at college of veterinary science, Vallabhnagar, Navania, Udaipur (Rajasthan)

Table- Fund Utilization (Rs. Lacs)

BE	RE	Fund Utilization	Fund Utilization (%)
400	333	292.97	88%

Table- Grading pattern of Units

Grade	A	B	C
Number	13	2	3
Percent	73	11	16

Table 6. Head Wise Unit Wise Revised Estimate for the Financial Year 2014-15

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Name of the Scheme / Project - AICRP on Goat Improvement, Makhdoom Farah	Capital							General				Total
	Work	Equipment	Liberary	Livestock	Furniture	Others	Estt. Charges	TA	HRD	Conting.	Others (Capacity	
PC Unit , CIRG, Mathura	0.00	1.25	0.00	0.00	1.12	0.00	0.00	1.60	0.00	5.00	0.00	**8.97**
Andaman Goat Unit, CIARI, Portblair	0.00	1.00	0.00	0.00	0.63	0.00	0.00	0.90	0.00	9.00	0.20	**11.73**
Assam Hill Goat Unit, AAU Khanpara, Guwahati	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	18.00	0.30	**19.20**
Barbari Farm Unit, CIRG ,Makhdoom, Farah, Mathura	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.40	0.00	9.00	0.00	**9.90**
Bengal Goat Unit , BAU , Ranchi	5.00	0.50	0.00	0.00	0.00	0.00	0.00	0.90	0.00	13.00	0.30	**19.70**
Black Bengal Goat Unit , WBUV & F S, Kolkata	0.00	1.00	0.00	0.00	0.00	0.00	10.00	0.90	0.00	6.50	0.30	**18.70**
Chantangi Goat Unit, SKUAST-K, Leh	0.00	1.75	0.00	0.00	0.75	0.00	0.00	1.00	0.00	9.00	0.30	**12.80**
Gaddi Field Unit, YSPHPKV, Palampur (HP)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.00	13.00	0.30	**14.20**
Ganjam Field Unit, OUAT, Bhubneshwar	0.00	1.00	0.00	0.00	0.00	0.00	9.00	0.90	0.00	8.00	0.30	**19.20**
Himalayan Goat Unit, IVRI, Mukteshawar	0.00	2.00	0.00	0.00	0.75	0.00	0.00	0.90	0.00	3.00	0.00	**6.65**
Jamunapari Farm Unit, CIRG, Makhdoom, Farah, Mathura	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.40	0.00	9.00	0.00	**10.40**
Malabari Field Unit, KVA & S, Trissur Kerela	0.00	1.00	0.00	0.00	0.00	0.00	15.00	0.90	0.00	6.00	0.00	**22.90**
Marwari Field Unit, RAJUV & AS, Bikaner	0.00	1.00	0.00	0.00	0.00	0.00	10.00	0.90	0.00	8.00	0.00	**19.90**
Osmanabadi Unit, NARI, Phaltan (MH)	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.90	0.00	17.00	0.00	**18.65**
Sangamneri Field Unit, MPKV, Rahuri	0.00	0.75	0.00	0.00	0.00	0.00	35.00	0.65	0.00	7.25	0.00	**43.65**
Sirohi Farm Unit , CSWRI, Avikanagar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.00	16.00	0.00	**16.50**
Sirohi Field Unit, Veterinary Collage, Vallabhnagar	0.00	1.00	0.00	0.00	0.00	0.00	16.00	0.85	0.00	7.25	0.00	**25.10**
Surti Field Unit, N.A.U, Navsari (Guj.)	0.00	1.00	0.00	0.00	0.00	0.00	8.00	0.85	0.00	10.00	0.00	**19.85**
Uttrakhand Goat Unit, GBPUA&T, Pantnagar	0.00	1.50	0.00	0.00	0.75	0.00	0.00	0.75	0.00	12.00	0.00	**15.00**
TOTAL	**5.00**	**17.00**	**0.00**	**0.00**	**4.00**	**0.00**	**103.00**	**16.00**	**0.00**	**186.00**	**2.00**	**333.00**
Grand Total	**26.00**						103.00	204.00				333.00

Salient Achievements and Impact

The project has far reaching consequences on conservation and improvement of goat genetic resources of the country by increasing the population and productivity of 13 discript breeds and 3 lesser known genetic resources in the farmers flock. The programme has significantly contributed in increasing fecundity, population growth, milk production, body growth and reducing morbidity and mortality. This has led 3-5 fold increase in income of goat farmers and enhanced food security of stake holders.

i. Significant improvement in body weights at different ages (from 19 to 43%), milk yield (from 12 to 31%) and prolificacy (8-17%) was observed in different breeds.
ii. Significant improvement in survival rate due to adoption of health and management practices at farmers flock. (e.g. mortality in Bengal kids at Ranchi Unit was reduced from 69% to 12.5% and in adults from 35% to 8.5% over the years).
iii. The mortality at institutional farms was brought down to approx.. 5% from 19% over the years in various breeds, motivating farmers for adopting of preventing health and other management practices (Health Calender).
iv. Improved management and selection of superior animals in the farmers flock has increased litter size significantly.
v. A higher population growth ranging between 60 to 182 % amongst breeds resulted into increased selection intensity, thus realized genetic gains could be high. As a population growth of Barbari and Jamunapari indicate potential to enhance meat and milk production in the country through selection and introduction of scientific management practices.
vi. Each farm unit is producing significantly high number of performance evaluated superior goats for breed improvement in the home tract of the breed and distributing these superior bucks to the farmers for genetic Improvement.
vii. Due to increased fecundity and population growth, capacity of the farmers to sale goats/year has increased up to 500 % which has increased income.(Black Bengal goats annual income from sale of goats has increased from Rs. 8,000 to 14,500 (small frock, <10 goats) and Rs. 15,000 to 28,000 (large sized >15 goats)).
viii. Produced 3-5 extension booklets/technical bulletins in regional languages for dissemination of technologies to farmers in each unit.
ix. Capacity building measures has increased awareness level of goat keepers resulting into increased interest in goat keeping amongst rural households as a source of livelihood; income generation especially in disadvantaged regions.
x. Field performance recording, genetic improvement through buck selection and provision of selected bucks for breeding has demonstrated importance of structured breeding programmes not only to farmers but also to planners and other agencies
xi. Identification of elite animals e.g. (5-20% of different goat breeds such as Jamunapari, Surti Sangemneri, and Osmanbadi producing more than 200 litres milk at 140 days).
xii. Established support to the underprivileged goat keepers in remote area. This is important because with very low input, valuable products such as milk, meat, skins and manure are produced. A source of rural employment and a vital link in nutrition and food security.
xiii. Project has contributed significantly to biodiversity conservation and secured Breed Saviour Awards i.e. Jamunapari and Surti goat breed.
xiv. Goats as major source of income generation to poor people in Tribal areas and NEH region. Contribution to raising the income and status of women as most goats are maintained by women.

xv. Technological interventions under the project have benefited more than 3000 goat rearing families covering thirteen breeds and few lesser known genetic resources distributed over thirteen states of the country. It has provided average employment ranging to 80 to 140 main days and has improved income from 67 (Assam hill goat) to 257 % (Osmanabadi goats). investment

Abstract

1. Andaman Goat Unit, CIARI, Port Blair

Andaman local goat field unit was established in 2014. Goat clusters were adopted in Port Blair and Ferrargunj tehsils based on surveys conducted. Subsequently, farmers and their goats were registered. So far a total of 197 faremers have been resigetred under the projects. Mineral mixture powder were distributed to the 120 farmers. A total of 8 elite Andaman local goat male bucks were purchased from the farmers field and is being reared at Institue farm for distribution to the farmers after attaining the sexual maturity. A flock strength of 2649 goats have been recorded, of which 1656 were female and 993 male and adult does were 1033.During the period a total of 64 goats died and 93 were sold. The cause of death was mainly bloat, diarrhea, dog bite, accidents etc. A total 101 newborn kids were also observed. The average mean body weight at birth, 3, 6, 9 and 12 month of female goats was 1.71±1.23, 4.9±0.37, 8.49 ± 0.57, 11.15±0.97 and 15.11±0.73 kg, respectively. The respective weights of male goats were 1.99±0.15, 5.55±0.28, 10.19±0.73, 12.28±0.76 and 16.04±0.72 kg, respectively. The overall chest girth (CG) for male goat at birth, 3, 6, 9 and 12 months was 25.9±2.18, 37.45±1.53, 47.25±3.51, 53.07±2.10, 60.12±1.89 cm, respectively. Measurements for paunch girth (PG) at birth, 3, 6, 9 and 12 months were 26.19±3.02, 40.43±2.42, 53.42±5.01, 58.53±3.31, 64±2.62 cm, respectively. Measurements for body length (BL) at birth, 3, 6, 9 and 12 months were 25.04±3.56, 36.02±1.45, 42.92±3.64, 46.76±2.67 and 49.25±2.25 cm, respectively. Measurements for height at withers (HW) at birth, 3, 6, 9 and 12 months were 26.19±1.68, 36.07±2.91, 43.84±2.73, 49.35±1.47 and 53±1.56 cm, respectively. Mean age and weight at first mating, age and weight at first kidding, service period, kidding interval and gestation period were 260±15.0 days, 8.49±0.89 kg, 420.0±12.0 days, 13.26±1.61kg, 101.20±11.23 days, 300.0±20.0 days and 147.0±2.0 days respectively . The kidding percentage on the basis of does kidded was 245.1 with a kidding rate of 1.07. Five awareness programmes on “Scientific rearing of goat for improving productivity” were conducted at Sippighat, New Bimblitan, Ranchi Basti, Calicut villages and one at Institute campus under which 211 farmers were trained.

2. Assam Hill Goat Unit, AAU Burnihat, Guwahati

The project is managed from the Goat Research Station, Burnihat, Kamrup campus of the university. There were 1980 goats from 209 beneficiaries distributed in the four clusters. The population growth was 104.23% during the year 2014-15. A total of 839 kids were born from 507 kidding with a kidding rateof 1.65. The highest kidding, 86 was observed in the month of October producing 152 kids. The twin and triplet kidding were 48.72 and 8.09 %, respectively during the year 2014-15 as against 39.80% and 8.6% in the previous year. The overall mortality rate was 6.82%. The major causes of mortality were pneumonia and colibacillosis which accounted for 21.63% and 19.29% mortality of total loss. Predation by stray dogs and wild foxes was another important cause with 16.37% of total mortality. The average morbidity was 15.88%. Dermatitis, itching 19.60% being one of the major cause of suffering followed by pneumonia 12.06%. During the period under report, 324 (12.93%) goats were sold and 31 (1.24%) were culled. The average family income from the goatery

increased to Rs. 3525.12 from Rs. 3,461.72 in the year 2013-14. The total income in the four field clusters were Rs. 7, 36,750.00. The Age and Weight at First Service and at First Kidding, Service Period, Kidding Interval and Gestation Period were 255.99±6.01 days, 10.12±0.33 kg, 403.89±7.08 days, 13.56±0.32 kg, 78.09±7.18 days, 225.13±6.16 days and 147.55 ± 0.66 days respectively. The mean weight of male at birth 3,6,9 and 12 months were 1.41±0.09, 5.20±0.13, 7.89±0.15, 10.71±0.17 and 13.68±0.49 kg, respectively. Corresponding weights in females were 1.14±0.03, 4.96±0.07, 7.53±0.18, 9.87±0.16 and 12.91±0.39 kg, respectively. To avoid inbreeding and to introduce genetic variability into the population, 16 superior bucks were distributed across cluster. Exchange of bucks between the field units to avoid inbreeding is also practiced on a regular basis.

3. Barbari Farm Unit, CIRG, Makhdoom, Farah, Mathura

The annual flock strength of Barbari goats for the year 2014-15 was 673 and 375 kids were born out of 240 goats. The population growth was 145% and overall mortality and culling of the flock was 3.8% and 5.73%. The overall least squares means of body weight of kids at birth, 3, 6, 9, and 12 month of ages for the year 2014 were 1.54±0.02, 8.55±0.09, 13.40±0.16, 19.14±0.33 and 22.69±0.41 kg, respectively. Kid's born during autumn season attained significantly higher body weight at 3, 6, 9 and 12 months of ages. Single born kids were significantly heavier than those born as multiple. Similarly males were significantly heavier than their counterpart's right from birth to 12 months of ages. The overall mean for 90 days milk yield, 140 days milk, total lactation yield, average daily milk yield and lactation length for the does kidded in 2014 were 57.56±1.15, 85.16±2.32, 67.94 ±1.54 liters, 519±9 ml and 126±1.56 days, respectively. Does kidded during spring season performed significantly better for lactation traits than those which kidded in autumn season. Overall mean for age and weight first mating, age and weight at first kidding, first kidding interval & gestation period were 341.4±10.4 days, 18.4±2.7kg, 475.5±7.4days, 21.9±4.6kg, 229.04±7.2 days and 144.1±2.3 days, respectively. Breeding efficiency on the basis of does available and does tupped were 82.1 and 83.2%. Kidding % (tupped goat), kids with multiple birth and litter size (number) was 145.3, 68%, and1.6, respectively. During the year 208 goats (162 male and 46 female) were supplied for breed improvement to farmers and various goat improvement & development agencies. A total of 573 goats of different age groups were assessed for nutritional and general health status by using BCS method. Results revealed that majority (>91%) of the goats in the herd were in good nutritional and health status reflecting better management practices. The data on 10450 goats during 1985 to 2014 were used for pedigree analysis using ENDOG version 4.8. The average inbreeding coefficient (fi) for the whole analyzed pedigree and for inbred animals was 2.27% and 4.4%, respectively. Four multiplier flocks of Barbari goats were established, 2 at Mathura and one each at Agra and Dholpur (Rajasthan). Overall survivability at multiplier flocks was 93.3%.

4. Bengal Goat Unit , BAU , Ranchi

There were four center of AICRP on Goat improvement namely Beko (Jamshedpur), Palajori (Deoghar), Tiko (Lohardaga) and Chamguru of Ranchi districts they are functional. During the year 2014-15, 46 bucks from Beko,Palajori, Tiko and Chamguru centre were exchanged among the farmers after testing the semen quality. Local bucks and male kids were culled /castrated to prevent matting by them. During the reporting year a total of 886 kids were born.

During the year 2014-15, a total of 345 kids were castrated at centres. All the goats of all centers were provided with timely health coverage like vaccination, deworming and dipping and supplementary feeding. At the end of March 2015, there were 350, 669, 517 and 473 goats at Beko, Palajori, Tiko and Chamguru centres, respectively. The overall body weights were recorded at birth, 3 month, 6 month, 9 month and 12 month of age were 1.28±0.06,5.94±0.08, 9.15±0.15, 11.45±0.20 and 13.58±0.09 kg, respectively. The kidding percentage based on does tupped and does available was 91.53 and 90.07 at Beko centre. The corresponding values for Palajori,Tiko and Chamguru centre were 87.23% and 86.25%; 88.23 and 86.52; 90.54 and 89.12 respectively. Kidding patterns single, twin, triplet and quadruplet were 55.51, 43.78, 2.59 and 0.70 %, for respectively at Beko centre 53.21, 43.75, 2.32 and 0.72%, respectively at Palajori centre 52.94, 43.55, 2.82 and 0.69%, respectively at Tiko center and 53.00, 43.63, 2.82 and 0.55 %, respectively at Chamguru centres. Body weights at various stages have increased over the base population due to regular vaccination, deworming and dipping.Improved feeding practices have resulted in improved health status of the goats. Mortality was reduced up to 9 percent at the farmer flock. A five day farmers training programmes were organized during 9 to 13 March 2015 at Small Ruminant Instructional Farm, R.V.C Kanke for farmers of all the centers. Farmers started keeping goat in separate house ie from human dwellings. Farmers have also started selection of male and female and mating their goats with improved pure-bred buck. Due to technical support of AICRP on goat farmers are raising more goats resulting more income from goats. Farmers of different centers earned Rs 985200/= 00 from sale of 349 goat during the reporting year. Two NGOs have purchased 13 breeding bucks from centers. 5 bucks were sold to KVK, Jagarnathpur W. Singhbhum, Jharkhand. A number of goat breeder also purchased breeding bucks from our centers.

5. Black Bengal Goat Unit , WBUV&FS, Kolkata

During 2014-2015, a new village Beliapukur with 86 does in M-J Block of Murshidabad district was adopted in collaboration with KVK Digha. Another cluster in Jhargram Block of West Midnapur having tribal farmers at Lodhasuli (Dhangri, Ranidihi, Manapara and Malapada villages) was added wherein 217 does were registered. The production performance of 638 does and 1285 kids born from 691 kidding were recorded. Twenty two bucks were purchased on basis of 6M body weight and prolificacy of their dams. Out of these 15 new bucks were distributed in the village units.The flock strength in the beginning was 1761and at the end of year was 2257. Annualpopulation growth was 57.93%. The average flock strength in the farmers flock increased to 5.94 from 4.50 in previous year. The initial flock strength per farmer was 2.53 in 2002-2003. Forty six percent farmers have had a flock of 1 to 4 goats, 35% had 5 to 8, 14% had between 9 to 12 and 4.4% above 12 indicating that majority of farmers rear goats in small flock size.The average body weight at birth, 3, 6 ,9and 12 M were 1.203 ± 0.005 kg, 4.998 ± 0.035 kg, 7.378 ± 0.048 kg, 9.845 ± 0.065 kg and 12.419 ± 0.101 kg respectively. During 2014-15 the average age at first service and kidding were recorded as 237.54 ± 5.07 days and 383.23 ± 5.31 days, respectively; the respective values were 304.47 ± 23.77 days and 439.17±24.67 days in 2013-14.The average service period, gestation period and kidding interval was 91.94±3.06 days, 147.39±0.26 days and 237.79 ± 3.04 days in all village units during 2014-15. Maximum number of kiddings occurred between Augusts to February, although kidding was distributed throughout the year. The kidding rate was 1.86 %. Single, Twin and triplet kidding were 31.69, 52.82 and13.31.Few quadruplet kidding (2.17 %) were also observed. With the intervention of health care and preventive measures the kid mortality (upto 12 month) has been restricted to 6.01%with overall mortality of 6.19 %. In marginal (upto 20 katha land), small (20 - 40 katha

land) and medium (above 40 katha land) farmer's annual income was around Rs. 4603.77±267.62, Rs. 4636.74±468.24, Rs. 5961.84±698.00, respectively. Amongst illiterate, partially literate (Class-I to IV) and moderately literate (Class-V to XII) annual income was around Rs. 4687.16±329.38, Rs. 4873.96 ± 395.35, Rs. 4881.58±428.21. Animals sold by the farmers were 23.14 % in 2014-15. The average annual income from a doe has substantially increased to Rs. 2790.00 in 2014-15. The average annual income of a farmer from goat keeping was Rs. 4820.12±225.27 in 2014-15.

6. Changthangi Goat Unit, SKUAST-K, Leh

This is a newly established unit. Kharnak, Samad and Korzok villages were adopted where in a 30 families were registered. Three clusters Kharnak, Samad and Korzok with a distance of 164km, 153 and 248 Km respectively from Leh were selected in the first phase. The altitudes in these areas are more than 14500 ft ASL with an average temp ranging from 20ºC in summer to -40ºC in winter. The overall Changthangi goats in these clusters are more than 45000. Out of this 11220 pashmina goats of all ages belonging to 27 families were registered under the project.The average weights at birth, 3, 6, 9 and 12 months of age in all the three clusters were 2.40 ± 0.2, 6.31 ± 0.17, 9.12 ± 0.18, 12.82 ± 0.21 and 15.82 ± 0.24 kg, respectively. The overall adult body weight (2-3 years) in all the 3 clusters was 26.08± 0.25 kgs, with an average of 27.32 ±0.33 in males and 24.85 ± 0.17 in females. The average pashmina yield for 365 days in Changthangi goats, were 262.66± 0.26 gms, with an average of 268±0.24, 256± 0.34 and 264± 0.21 for Kharnak, Samad and Korzok Cluster respectively.In 2014-15 breeding, the tupping percentage was 96.6%. The breeding efficiency was 78.13 and 78.65%, on the basis of does available and tupped, respectively. The overall kidding percentage was 65.4% among the registered goats' in all the 3 clusters with 32.4% abortion rate. Further, the kid mortality was 42.3%, the reason being CCPP, malnutrition and hypothermia. The mortality rates in 0-3, 3-6, 6-12 month age group and in adults were 27.7, 14.6, and 5.15 percent, respectively. The overall mortality rate irrespective of age groups was 48.55 percent. The high mortality in kids was due to hypothermia (-40 C) during kidding or winter season.Health management which includes dosing, dipping, vaccination against important diseases like FMD and PPR, general treatment were carried out in free of cost in all the goats of 3 clusters. More than 15000 goats were taken under the health management during the year 2014-15. A total of 6 one day training in the home tract was conducted during the year 2014-15 and training cum farm exposure visit was also organized at the HMAARI station for 27 breeders registered under the project.The unit has taken up the key issues like kid mortality, defects in combing instrument, poor quality milk product, poor health of the goats during winter and identified certain solution to tackle the problem which will be implemented this year.

7. Gaddi Field Unit, YSPHPKV, Palampur (HP)

The opening balance was 1197 goats including 646 breedable does. During the year, a total of 589 young kids were added in selected flocks by way of birth, 195 animals of different age groups died and 427 animals pertaining to different age groups were sold by the owners. The closing balance as on 31.03.2015 was 1164 animals under different age groups. For production of breeding bucks 25 male kids of 4-6 months age group were purchased on the basis of performance fromadopted farmers. These male kids were then transferred to Palampur center for subsequent rearing up to the age of sexual maturity, following all standard management practices. After final selection, a total of 16 males were finally distributed to 15 different farmers as a breeding input. In addition, 39 male kids were also purchased during March, 2015 for the distribution as breeding buck to the farmers for 2015-

16 and are being reared at Palampur center. All selected animals were provided health coverage under migratory field conditions viz. vaccination against PPR (1200 doses), de-worming against endo-parasites after fecal sample analysis (800 animals), periodic health check-ups etc. Strategic supplementary feeding was also provided in the form of mineral mixture (180 Kg) and concentrate feed (24 qtls.) supply. Collaboration with state Animal Husbandry Department was ensured while providing health coverage and other related activities. The overall population growth was observed to be 104.73%. The overall mortality was 10.92%. The incidence of twin birth was 21.19%. The overall abortion in the flocks was 6.58%. The kidding rate of the flocks was 1.21%. Maximum kidding (57%) was occurred in the month of November and December.

8. Ganjam Field Unit, OUAT, Bhubaneshwar

Three new villages Bharasa, D. Guhariapat and K. Guhariapat in the Khallikote cluster was adopted last year and 10 farmers were registered respectively belonging to the scheduled tribes(ST). All the breedable does of the newly adopted farmers were identified with poly urethane plastic tags.Action was initiated for starting a new cluster at Bhanjanagar and nearby area for taping the genetic variability of the Ganjam goats. Eleven young sleeted bucks were provided to three farmers. A total of 6500 dosages of Enterotoxaemia, 1500 dosages of PPR and 2000 dosages of goat pox vaccines were given to the goats. Deworming dosages distributed were 10,232 and number of goats treated 1562. The kid mortality always remained below 6 per cent over the year and whereas last year it was 10.47 per cent. This year there is substantial reduction in kid mortality which stands at less than 6.0 per cent. A total of 1351 goats were recorded for the growth traits and 184 recordings were done for the reproductive traits. Beside this 320 adult goats were recorded for the growth and morphometric traits as per their dentition groups.The overall means of body weights of goats were 2.40 ± 0.03, 7.51± 0.06, 9.88±0.06, 14.52± 0.10 and 18.44 ± 0.16 for birth,3 month, 6 month, 9 month and 12 month of age respectively. There has been improvement of 2.64 kg for the 9 month body weight till the current year as compared to the base year(2001) and improvement of more than 6.01 kg has been observed in the yearling body weight over the base year. A total of 21 progenies were recorded at recorded from the three breeding bucks distributed last year to the newly adopted farmers. The number of kids born were 2187 from 3456 breedable does from all the three centres of Chhatrapur, Rambha and Khallikote which is kidding percentage increased from 60.2 percent last year to 63 percent in the current year. A trial conducted on the comparative efficacy of anthelmintic on gastro-intestinal nematodes concluded that Ivermectin was most effective in reduction of Eggs per gram of faeces but closantel gave longer protection against reinfection beyond 14 days.

9. Himalayan Goat Unit, IVRI, Mukteshawar

All India Coordinated Research Project (AICRP) on"Himalayan goat unit" was initiated at Temperate Animal Husbandry division, Indian Veterinary Research Institute, Mukteswar campus on 14th June, 2014 with objective of Himalayan (Chaugarkha) goat improvement and enhance its productivity, which in turn to improve livelihood of local farmers as this goat adopted very well in Kumaon region based mid Himalayas of Uttarakhand. To map the breeding tract and distribution of Chaugarkha goats, surveys were conducted in various places of three districts, namely Dhol, Jhal Dungra (Lamgarha block), Khola, Gandhak, Mirtola (Dhauladevi block) of Almora district (original breeding track of Chaugarkha goats), Talle and MalleDeeni, pahadpani, Saspani (Dhari block), Supi, Bichgali (Ramgarh block) of Naintal district and Gangolihat (Gangolihat block) of Pithoragarh district. After survey, it has been found that Chaugarkha goats mainly distributed these areas, therefore, Khola,

Gandhak Mirtola (Dhaula devi block) has been identified as one of the clusters. The survey results showed that the animals are mainly managed in unorganized system, feeding purely based on browsing in jungle bushes, tree fodders and agriculture wastes, barely animals get concentrates. Chaugarkha goats are small size breed reared mainly for meat purpose and the average herd size is 8 to 12 goats (herd size is varying from 2-6 to 25-30 goats). The colours of the breed are black, fawn and white with stripe on face, which run downwards from base of horn to back of muzzle. Forehead is small to medium size, convex, tapering muzzle with alert eyes and Roman nose. Both male and female adult have straight horns (6-9 cm). The maturity age of female is 10-12 months and age at first kidding is 16-18 months. Majority of females deliver one kid per kidding twice a year, however, twinning also frequent in healthy goats. The adult body weight between 15-20 kgs. Four seventy six (476) faecal samples were collected for identification of parasitic infections. The qualitative, quantitative and culture analysis revealed that strongyles (Mainly *Haemonchuscontortus* and *Teladorsagiacircumcincta*), *Moniezia* and coccidia are common infection of these goats. The preventive health measures have been initiated to control parasitic infection.

10. Jamunapari Farm Unit, CIRG, Makhdoom, Farah, Mathura

The annual flock strength of Jamunapari goats for the year 2014-2015 showed opening balance of the flock was 741 and closing balance was 747. During the period 348 kids were born, in which 155 were males and 193 were females. The population growth of the flocks was 113.9% during the year. The overall mortality of the flock during the year 2014-15 was 3.94 % and annual culling rate was 3.12 %.The mean of body weights of kids at birth, 3, 6, 9 and 12 months of age during the year were 3.28, 12.77, 18.12, 23.55 and 28.311 kg, respectively. Parity of dam had significant effect on kid's body weight and males had higher body weight than females at all the ages. The mean body weight under intensive management at 12 months of age was 45.705 kg and the highest value was 52.0kg. The average daily weight gain (ADG) of the kids under intensive management was 111.0, 115.3, 11.3, 119.9 and 111.5 g/day, respectively during 3-6, 3-9, 3-12, 6-9, and 6-12 month age group. The highest value of ADG was 152g/d during 6-9 months of age. Least squares means of part lactation milk yield in 90 days and 140 days were 78.07±2.37 and 110.67±3.78 liters, respectively during the year 2014-15. Parity had significant effect on milk yield over the years. The doe, which had multiple births, produced more milk in comparison to doe having single kid. During this year, a total of 233does kidded 348 kids, out of which single, twin and triplet born kids were 119,226 and 3 respectively. Reproductive performance of Jamunapari goats in terms of breeding efficiency and kidding percent on the basis of does selected for breeding were 84.69% and 118.3%, respectively. The kidding rate was 1.49.Improved animals were supplied to various developmental agencies, farmers and state governments, Non-Government Organizations and progressive breeders for genetic improvement in the field conditions. During year, 224improved animals were distributed to goat breeders for breed improvement of their flocks and 28 animals were transferred to other division for experimental use.

11. Malabari Field Unit, KVA & S, Trissur Kerala

Project operates in six field centres viz. Thalassery, Badagara, Tanur, Perambra, Thalaiparamba and Kottakkal located in the North Kerala. Males selected from multiple births on the basis of body weight at 6/9 months of age and distributed to farmers. Health measures like periodical deworming, vaccination and supply of feed supplements were carried out. Total of 1336 animals from 335 farmers were registered and all adult females (1082) were provided with insurance coverage under the project. The participation of women

was 66.50%. The overall population growth recorded was 87.47% with flock size of four to five. Majority of goat keepers (93.30%) in the project area had school education with land holding of below 25 cents. Average flock size of adult females was 3.70. The percentage of singles, twins, triplets and quadruplets were 44.31, 48.98, 6.41 and 0.30, respectively. Mean average daily milk yield was 0.86±0.04 litres. Body weight at one, three, six, nine and twelve months of age was 3.20±0.09, 8.65±0.20, 14.80±0.30, 19.45±0.54 and 21.80±0.90 kg, respectively. The mean of age at first kidding and inter kidding interval were 396.20±11.30 and 277.50±14.20 days, respectively. Enteritis was the major cause of morbidity followed by Pneumonia. Kid mortality was 4.7% in project area. During the year, 16 training sessions on goat rearing were conducted to 395 farmers. Intensive training on goat rearing with 2-4 days duration was imparted to 56 farmers. A Samagra goat village scheme has been launched in collaboration with self help groups to establish 20 elite Malabari breeding units in the home tract and five bucks were supplied in first phase.

12. Marwari Field Unit, RAJUV&AS, Bikaner

One new centre of Marwari goat was established in Depalsar village of the Churu district of the Rajasthan, which is approximately 189 km away from the Marwari Unit head quarter. With addition to this cluster, the Marwari Field unit is having five clusters viz Bikaner (Deshnokh, Kalyansar-Raisar and Daiya), Jodhpur (Kan Singh Ki Sidd) and Churu district (Depalsar) from distant corners of breeding tract to explore maximum genetic variation. All the registered goats of new cluster and existing clusters were identified by plastic ear tag. Twenty superior Marwari bucks were disseminated free of cost to adopted flock and 10 bucks on cost basis to the other agencies for breeding purpose. The 28 male kids were selected for first stage of selection and are reared till the age of final selection for future buck. The 1307adult does of all adopted clusters under the project were recorded for growth, milk yield, reproduction and health parameter.The body weight at birth and 12 months of age was improved by 13.86 % and over the baseline performance (2.257 kg). The overall least square mean for body weights at birth, 3 month, 6 month, 9 month and 12 months of age were 2.57, 8.47, 14.01, 19.05 and 26.18 kg, respectively. The birth weight was significantly influenced by cluster, sex of kid, single/twin kid and kidding month. This improvement was due to distribution of selected elite sires in farmers' flocks and effective health coverage. The test day milk yields of about 200 does were recorded fortnightly during the lactation. A total of 24133 animals of the flock were provided health coverage by way of vaccination against PPR, ET, dipping and de-worming besides strategic supplementary feeding in the form of mineral mixture. Reduction of the mortality rates in the farmers flock. Goat farmers were sensitized to form goat breeder/cooperative societies.

13. Osmanabadi Unit, NARI, Phaltan (MH)

The Osmanabadi Field unit works in four village clusters - Wadgaon in Satara district, Kamone in Solapur district and Sakat and Borla in Ahmednagar district. Total 605 adult does and their 1176 kids were recorded during 2014-15. The numbers of recorded goats were 125, 195 and 285 adult female goats in Satara, Solapur and Ahmednagar districts, respectively, belonging to 188 goat keepers. The average number of goats per household was 3.22. All goats and kids were protected with vaccination as per schedule and deworming and spraying as required. About 90% of the does aged than one year, kidded during the year. 15-20% of those kidded twice in the year. The average litter size from 698 kiddings during the year in the four villages was 1.69. The mortality among kids younger than 3 months was 6%. Overall mortality was 3.9%. 35% male and 22% female kids of the age of 3-6 months were sold in total from all villages. Out of the remaining kids, 65% males and 44% females were sold at

the age of 6-12 months. Thus about 40% of the female kids were retained for breeding. Only about a third of these are needed as replacements. Thus remaining two thirds of the kids contribute to increasing the number of adult goats reared for production. The 100-day milk yield of does (1077 records) that had given birth to single, twin and triplet kids was 64.0±1.9 kg, 97.8±1.6 kg and 131.4±3.3 kg. Goats from Kamone in Karmala taluka had 34% higher least-squares mean 100-day milk yield than those in Phaltan taluka. The overall least squares mean weight (total number of records 2068) was 2.4±0.06 kg at birth, 10.5±0.2 kg at 3 months, 15.7±0.6 kg at 6 months, and 22.7±1.9 kg at 9 months. The highest weight at 3-months was 20.0 kg while the highest weight at 6 months was 30.8 kg. Nearly 8419 semen doses of 30 Osmanabadi bucks in straws in the 'State of the Art Buck Semen Freezing and AI Centre set up with a grant from the Government of India. 4000 straws out of these were supplied to the Government of Maharashtra for their A.I. centres in five districts; 2124 straws were supplied to 22 Field AI technicians in Maharashtra (Aurangabad, Ahmednagar, Hingoli, Kolhapur, Nashik, Pune, Sangli, Satara and Solapur districts) and one distributor in Karnataka and there are 1291 straws in storage. Breeding support also extended to non-adopted areas. Two visits of 19 Pashumitra group members from Sakat and Borla were organized to NARI's livestock and fodder farms on 30 May and 16 September, 2014 respectively. Performed, refine and fine-tuning our MS Access database of the Osmanabadi field unit and putting it on the SQL platform for ease of data entry and data retrieval. Project also supported to develop goat based entrepreneurship in project operational area.

14. Sangamneri Field Unit, MPKV, Rahuri

The programme was initiated by registering 500 does. However during year, 2014-15, 1348 breedable does were registered under 4 clusters i.e. Sangamner, Shrirampur,Rahuri and Belha located under 3 districts Ahmednagar, Nashik and Pune. Total 48 breeding bucks were rotated in the selected villages. 1909 progenies were generated in the field during the year. The overall least square means for 1,3,6,9 & 12 month body weight was 4.98±0.05(9782), 9.18±0.09(8420), 13.97±0.20(3198), 18.36±0.26(17.88) and 22.50±0.33 (1184) kg respectively. All the nongenetic factors i.e. villages cluster, year, season, type of birth and sex resulted significant influence up to 6 months body weight, however the season does not shows significant influence on the body weights at 9 and 12 months of age. The age at first conception and kidding showed considerable improvement as the age at first conception and first kidding were 309.68±11.76, 407.65±12.09 day,s respectively. The kidding interval was also reduced from 266.36±9.45 days to 238.73±9.28 days. The numbers of kids per kidding were1.83 most of the reproductive traits were significantly influence by various non-genetic factors. The 90 days milk yield was increased by 6.09 lit. over the last year (92.69±1.90 to 97.56±1.83 lit). The Sangamneri field unit is working in two dimensions i.e. improvement through selective breeding and increasing Sangamneri population by up gradation of non-descript goats and subsequently through selective breeding. The Improvement in body weight at 1, 3, 6, 9 &12 months data was 1.84, 6.74, 10.43, 10.07 and 14.16%, respectively over the baseline performance. Similarly the milk yield also improved by 55.52% over baseline data. ii The population of the Sangamneri goats increased by 52.90% over the last year in the registered cluster. However the population in the breeding tract increased by 399.52% i.e.3759 during 2006-07 to 15018 during 2014-15. During this year four KVKS (Babhaleswar , Naryangaon , Malegaon and Nashik)in the breeding tracts have been involved in improvement programme and 15 bucks were supplied to them to execute the programme Special goat training programme have been organized through the KVKS to create the awareness regarding conservation of Sangamneri goat. Five thousand frozen Semen doses of elite bucks have been prepared and will be submitted to NBAGR shortly. Fourteen elite

female and 6 bucks were purchased. Prophylactic measures were carried out by vaccinating 4131 goats against ET and PPR and deworming of 3486 goats were done with the help of Department Animal Husbandry. The demand for Sangamneri bucks in increased accordingly during this year 45 bucks, & 34 were does sold to the goat keepers through revolving fund Project of the MPKV. The unit had been included women's self help groups through which Mrs. Surekha Subhash Shinde, at Gogalgaon Dist- Ahmednagar made victory by selling the 7 male kids of 4 months age at Rs.35000/-. Mrs. Latabai Haribhau Kadu, At/P- Gogalgaon Dist-Ahmednagar aban-doned woman is self sustaining by Sangamneri goat keeping. Two heifers were purchased by Shri. Babasaheb Kashinath Gade A/P. - Jogeshwari Akhada, Tal. Rahuri are purchased by utilizing the income from the goats.

15. Sirohi Farm Unit, CSWRI, Avikanagar

The opening balance on 01.04.2014 was 211 males and 446 females totaling 657 animals. The additions during the year were due to birth of 144 male and 142 female kids. The reductions were due to death of 5 males and 10 females, culling of 12 males and 27 females, sale of 128 males and 89 females. The closing balance as on 31.03.2015 was 201 males and 462 females totaling 663. The overall least squares means (2010-11 to 2014-15 born animals) for live weights at birth, 3, 6, 9 and 12 months of age were 3.04, 11.93, 18.39, 24.46 and 29.26 kg, respectively. The growth rate in terms of per day average gain was 98.70 and 63.91 g from 0 to 3 months and 3 to 12 months of age, respectively. The overall least squares means (2009-10 to 2013-14 kidding) for milk yield at 90 days, 150 days, total lactation milk yield and lactation length were 74.64, 101.86 and 109.50 kg, and 182.87 days, respectively. During the year, out of 319 does available for breeding, 317 were tupped and 262 kidded with 21 giving birth to twins. The tupping percentage was 99.37. The breeding efficiency was 86.13 % on the basis of does available and 86.69 %, on the basis of does tupped. The kidding percentage was 91.29 and 91.88 on the basis of does available and does tupped, respectively. The litter size was 1:1.08. The overall mortality rate was 1.59 percent. A total of 217 animals comprising of 128 males and 89 females were sold to the progressive farmers, Government and Non-government agencies for improvement of their goats for meat and milk production. The total receipts from sale/transfer of live animals, sale of milk, culling etc. during the year was Rs 15,35,601.00.

16. Sirohi Field Unit, Veterinary Collage, Vallabhnagar

On-going AICRP on goat improvement (Sirohi field unit) came in to financial existence on 1st January 2001, with the main objective to bring about the improvement in the farmers flock. As per technical programme base line information on production and reproduction traits, managemental practices, production trend and disease pattern were recorded and analyzed. The registration of farmer's flock and the identification of animals were carried out in four clusters. The data on growth, lactation and reproductive performance of Sirohi goats under field conditions have been analyzed using least square techniques since 2009. The closing balance of the registered flock was 1652 animals including 1125 females. During report period, 488 kids were born out of which 256 were males. During report period population growth was 84.63% recorded. The least square means for body weight at birth, 3, 6, 9 and 12 months of ages were 2.24±0.03, 13.69±0.20, 18.07±0.33, 21.69±0.61 and 26.68±0.64 kg, respectively. The data on body weights showed significant increased over the years. Heritability of birth weight was found to be moderate. Year, season of birth, sex of kid and type of birth have significantly affected on the body weights. Kids born between months July-October had higher weights at birth and 9 months body weight whereas kid born between March to June had higher body weight at 3,6 and 12 months of age. Single born kids

were significantly heavier than the multiple born kids at all the ages. Genetic parameters for growth, lactation and reproductive traits were estimated. Total 28 breeding bucks were distributed to registered farmers during the report period for further genetic improvement in the field. Additional three TSP centres are added and 18 bucks were distributed in TSP center. Kidding rate of 1.25 was recorded during the period. The absolute selection differential of 4.89 kg for 3 months body weight and 9.75 lit for 90 days milk yield were observed for future set of bucks. Major diseases observed in the registered animals were enteritis and pneumonia.

17. Surti Field Unit, N.A.U, Navsari (Guj.)

During this year the unit had organized 14thAnnual review Meet of AICRP on Goat improvement between 29-30 September 2014. In this review meet two success stories of two goat farmers (Dipeshbhai Ahir & RaisinghbhaiVasava) were released. Field visit to farmer flocks and Buck show was organisedVill-Sukhesh (RamporeFalia), Taluka- Pardi, Distt-Valsad. A consortium meet "GOAT MILK PROCESSING ON COOPERATIVE BASE IN GUJARAT" was jointly organized by AICRP on Goat Improvement- Surti Field Unit, BVG India Ltd, Boga Group & South Gujarat Goat Farmers Cooperative Union (SGGFCU). With continuous bilateral efforts from farmers and Surti field unit tribal farmers have started 14 notified village levels goat cooperatives out of which 3 had already been provided with accreditation of registered cooperatives by District Registrar. Eighteen (18) on campus, 21 FLD's (field visits and demonstrations), were organized by the unit.As an achievement a total of 8 Surti bucks had been supplied in field to minimize the problem of non-availability of Surti bucks. Additionally 20 bucks are ready for dissemination this year. In field a total of 08 new goats were registered and a closing balance of 535 white Surti goats was observed. Many of the progressive farmers had come forward and shown their commitment to retain Surti type goats in future after being taught about importance of this goat by AICRP Surti field unit staff. As an achievement continuously increasing trend in registered Surti goat population have been achieved under the project area during last six years.There was 16.71% increase in birth weight and 14.13% increase in total milk yield had been observed from 2009 to 2014 in adopted villages. During the current year the least square means for body weight at birth, 3, 6, 9 and 12 months of ages was 2.0±0.24 (518), 8.08±0.10 (335), 13.70±0.20 (247), 19.67±0.23 (208) and 23.19±0.32 (92) kg, respectively. Season of birth, sex of kid, breed, type of birth and clusters had significantly affected the body weights. Kids born between November and February months (winter) had higher birth weights at birth, 3, 6 and 9 months. Kids born during summer had shown highest body weight at 12 month of age. Single born kids were significantly heavier than the multiple born kids during first nine months, whereas differences get subsides as they approach 12 months of age. Kidding rate had been increased to 1.47 from 1.41 since 2009 justifying higher prolificacy in Surti Goats. Overall mortality in Surti flocks was 5.55%. Two research papers & seven abstracts had been published and four research papers had been communicated for publication from the research work done on Surti goats under the scheme. Ten (09) Post Graduate and five (5) Departmental collaborative research works had also been undertaken in the scheme. Surti goat population need to be conserved and improved in time and it can pave the possibility of improving other non-descript breeds of the area through proper breeding plan. Overall there is a great scope of providing due importance to higher fecundity genes and milk producing ability of Surti goat breed.

18. Uttrakhand Goat Unit, GBPUA&T, Pantnagar

Uttarakhand Goat Unit was added from beginning of this year, however, it was launched at Department of Livestock Production Management, College of Veterinary and Animal Science, G.B.Pant University of Agriculture & Technology, Pantnagar on Aug. 29, 2014 with objective of improving uttarakhand local goats. A new breed named 'Pantja' goat registered through NBAR a national nodal agency to register new breeds. Since, a new breed got registered, work was focused to map the breeding tract and distribution of Pantja goats. Forrmats were prepared and surveys were conducted in these districts and adjoining areas, totaling about 39 villages. After survey, it was found that Pantja goats are mainly distributed in the areas, namely Bara, Kunda, Tilpuri and Bhimtal. Therefore, these areas were selected as clusters for further research and improvement work. The survey results showed that the goats are mainly managed in unorganized manner as subsistence farming and feeding was purely based on their browsing in fields bushes, tree lopping and agriculture wastes, without any provision of concentrates. Pantja are medium sized goats reared mainly for meat purpose with average flock size of 7±2. However, the flock sizes as big as 35 to 62 have also been observed. The composition of the flock for does, bucks and kids being 48, 1 and 51 per cent, respectively. Traditionally, buckling have been castrated by incision method at about 10 days age and hence Pantja bucks were not commonly seen with small flocks. People consider meat of Pantja wethers as highly delicious. The colour of the goats is brown/ fawn, getting lighter ventrally with stripe on face. They are very active but docile and morphologically resemble with deer. Pantja have small sized horns (about 10 cm), which are triangular, twisted, pointed at tip and oriented slightly upwards and backwards. Their birth weight and yearling weight in male and female was 1.9±0.2, 1.7±0.2 and 21.1± 2.1, 17.5±1.7 kg, respectively. The age at sexual maturity of female ranged between 9 to 11 months and age at first kidding between 14 to 15 months. Majority of females deliver two kids (67%) per kidding, however, tripleting is also frequent in healthy goats. Being poor, the goat keepers maintain goats un-hygienically. Thus, a lot of these goats suffer from parasitism (external and internal), coccidiosis and PPR. Attempts have been initiated to improve health ststus through preventive measures by supplying lime for spray on the floor of the goat house, mineral mixture, deworming and vaccine. Department is maintaining an elite flock of Pantja and a total of 9 bucks from this flock have been supplied to the farmers in the field for genetic improvement of the goats. Besides, 9 castrations have been performed in the field. A facility of natural service to the local goats has been created under the project.

सारांश

अखिल भारतीय बकरी सुधार समन्वित अनुसंधान परियोजना, भारत सरकार द्वारा बकरियों के नस्ल सुधार एवं उत्पादन क्षमता में वृद्वि हेतु देश के 18 विभिन्न कृषि विश्वविद्यालयों, संस्थानों तथा गैर सरकारी संगठनों के सहयोग से चलाया जा रहा हैं। परियोजना का मुख्य उद्वेश्य भारत की विभिन्न बकरी नस्लों में आनुवांशिकी सुधार, आधुनिक ज्ञान एवं तकनीकियों का उपयोग तथा बकरी पालकों की क्षमता में विकास करना है। साथ ही साथ शोध संस्थानों द्वारा विकसित तकनिकियों की उपयोगिता सिद्व करना एवं प्रगति दर में उनकी भूमिका का मूल्याकंन करना हैं। क्षमता के आधार पर चयनित एवं अंगीकृत बकरी पालकों को इस परियोजना के तहत तकनीकियॉ प्रदान की जाती है जिससे बकरियों की उत्पादकता में सुधार आ सके। इस तरह पीढी दर पीढी, उत्पादकता में प्राप्त सुधार परिणामो एंव अनुभवों का वृद्वि दर के आधार पर, देश में बकरी पालन सम्बन्धित प्रमुख नीतियों का निर्धारण एवं लाभकारी परियोजनाओं का विकास किया जा सके। साथ ही साथ, अंगीकृत बकरी पालकों द्वारा अपनायी गई आधुनिक विधा को देखकर, अन्य किसान, आधुनिक बकरी पालन कर सकें। इस प्रक्रिया से आधुनिक बकरी पालन तकनीकियो को देश भर में प्रचारित एंव प्रसारित करने में सहायता मिलेगी। इस परियोजना के तहत अभी 13 विकसित एंव कुछ अल्प विकसित बकरी नस्लों पर अनुसंधान कार्य किया जा रहा है। इन केन्द्रो को सारिणी 1 में दिखाया गया है।

सारिणी 1: अखिल भारतीय बकरी सुधार समन्वित अनुसंधान परियोजना की उप इकाईयों के नाम व पते

क्रसं.	इकाई का नाम	स्थान	लक्ष्य
1.	असम पर्वतीय बकरी इकाई	असम कृषि विश्वविाालय, खानपारा गुवाहटी, असम	मॉस
2.	बरबरी बकरी इकाई	केन्द्रीय बकरी अनुसंधान संस्थान, मखदूम, फरह, मथुरा उ.प्र	दुग्ध एवं मॉस
3.	ब्लैक बंगाल बकरी इकाई	पश्चिम बंगाल पशु एवं मत्स्य विज्ञान विश्वविद्यालय, कोलकाता	मॉस
4.	ब्लैक बंगाल बकरी इकाई	बिरसा कृषि विश्वविद्यालय, रॉची,	मॉस
5.	गद्दी बकरी इकाई	पालमपुर कृषि विश्वविद्यालय, हिमाचल प्रदेश	मॉस एवं रेशा
6.	गंजम बकरी इकाई	उड़ीसा कृषि एवं प्रौद्योगिकी विश्वविद्यालय, भुवनेश्वर	मॉस
7.	जमुनापारी बकरी इकाई	केन्द्रीय बकरी अनुसंधान संस्थान, मखदूम, फरह, मथुरा उ.प्र	दुग्ध एवं मॉस
8.	मालाबारी बकरी इकाई	केरल पशु चिकित्सा एवं पशु विज्ञान विश्वविद्यालय, त्रिचूर, केरल	मॉस एवं दुग्ध
9.	मारवाड़ी बकरी इकाई	राजस्थान पशु चिकित्सा एवं पशु विज्ञान विश्वविद्यालय, बीकानेर	मॉस
10.	उस्मानाबादी बकरी इकाई	निम्बकर कृषि अनुसंधान संस्थान, फल्टन, सतारा	मॉस एवं दुग्ध
11.	संगमनेरी बकरी इकाई	महात्मा फूले कृषि विद्यापीठ, राहुरी	मॉस एवं दुग्ध
12.	सिरोही बकरी इकाई	केन्द्रीय भेड़ एवं ऊन अनुसंधान संस्थान, अविकानगर	दुग्ध एवं मॉस
13.	सिरोही बकरी इकाई	राजस्थान पशु चिकित्सा एवं पशु विज्ञान विश्वविद्यालय, वल्लभनगर	मॉस
14.	सुरती बकरी इकाई	नवसारी कृषि विश्वविद्यालय, नवसारी	दुग्ध एवं मॉस
15.	अंडामान बकरी इकाई	केन्द्रीय द्वीपीय कृषि अनुसंधान संस्थान, अण्डमान एंव निकोबार द्वीपसमूह	मॉस
16.	उत्तराखण्ड स्थानीय बकरी इकाई	गोबिन्द बल्लभ पन्त कृषि एवं प्रौद्योगिकी विश्वविद्यालय, पन्तनगर	मॉस
17.	हिमालयन स्थानीय बकरी इकाई	भारतीय चिकित्सा अनुसंधान संस्थान, मुक्तेश्वर	मॉस
18.	चांगथांगी बकरी इकाई	शेरे कश्मीर कृषि विज्ञान एवं प्रौद्योगिकी विश्वविद्यालय, श्रीनगर, कश्मीर	मॉस एवं पश्मीना ऊन

परियोजना का मुख्यः उद्देश्य निम्नवत् है ।

- देश की बकरी आनुवशिंकी संसाधनों की उत्पादकता में सुधार, उन्हीं के उद्भव एवं विकास स्थल व परिवेश में रखते हुये, लाना।
- बकरी नस्लो में सुधार हेतु उत्तम उत्पादक क्षमता वाले पशुओं के समूह विकसित करना।
- ग्रामीण परिस्थितियों में, पशु उत्पादकता एवं स्वास्थ सुधार पर जनन, प्रजनन, पोषण एवं स्वास्थ आधारित आधुनिक ज्ञान एवं तकनीकियों की उपयोगिता पुष्टि करना।
- टिकाऊ एवं लाभ दाई बकरी पालन हेतु किसानों की क्षमता में विकास करना एवं बकरी पालन का मानव जीवन यापन तथा खाद्य सुरक्षा में भूमिका का ऑकलन करना।

उपरोक्त उद्द्वेश्यों को ध्यान में रखते हुये, एक प्रभावी तकनीकि प्रारूप एंव कार्यक्रम तैयार किया गया है जिसको कि सभी 18 केन्द्रो पर थोडा – बहुत बदलाव के साथ लागू किया जा रहा हैं। इस परियोजना के सफल संचालन हेतु वर्ष 14–15 के दौरान कुल 333 लाख रूप्ये आवंटित किये गए। केन्द्रो द्वारा किए गए विकास कार्य का संक्षिप्त विवरण नीचे दिया जा रहा है।

1. अंडमान बकरी इकाई, केन्द्रीय द्विपीय कृषि अनुसंधान संस्थान, पोर्टब्लेयर

अंडमान द्वीप समूह में पाई जाने वाली बकरियों की गुणवत्ता को देखते हुए इसी वर्ष, इस केन्द्र की स्थापना की गई। इलाके का सर्वेक्षण कर, 797 बकरी पालकों का पंजीयन किया गया। तत् पश्चात उन्हें आवश्यक सामग्री जैसे कि खनिज लवण, मिश्रण आदि वितरित किया गया। आठ उत्तम उत्पादक क्षमता वाले नर मेमनों का चयन कर प्रजनन हेतु बकरों का विकास किया जा रहा है। उत्पादन में विभिन्नता के आकलन हेतु कुल 2649 बकरियों (1653 मादा एवं 993 नर) पर उत्पादकता सम्बधी ऑकडें इकट्ठा किए गए। बकरियों में मृत्यु के कारणों में प्रमुखतः अफरा, अतिसार और परभक्षी जानवरों द्वारा शिकार करने से हुई। सर्वेक्षण के दौरान 101 बच्चे पैदा हुए। अंडमान मादा बकरियों का जन्म, 3, 6, 9 व 12 महीनों पर वजन क्रमशः 1.71±1.23, 4.9±0.37, 8.49±0.57, 11.15±0.97 एंव 15.11±0.73 तथा नर बकरियों 1.99±0.15, 5.55±0.28, 10.19±0.73, 12.28±0.76 एंव 16.04±0.72 कि0ग्रा0 था। इन मादा बकरियों की प्रथम गर्भ धारण करने की उम्र व वजन, प्रथम बार व्यॉत के समय उम्र व वजन, व्यॉत पश्चात गर्भ धारण करने का समय (service period) तथा दों ब्यॉत के बीच के अंतराल व गर्भकाल क्रमशः 260±15.0 दिन, 8.49±0.89 कि0ग्रा0, 420.0±12.0 दिन, 13.26±1.61 कि0ग्रा0, 101.20±11.23 दिन, 300.0±20.0 दिन एंव 147.0±2.0 दिन था। इस दौरान उत्पादकता सुधार हेतु वैज्ञानिक बकरी पालन पर कुल 5 क्षमता विकास कार्यक्रम चलाये गये।

2. असम की पहाडी बकरी इकाई, असम कृषि विश्वविद्यालय, गुवहाटी

असम की पहाडी बकरियों के सुधार का कार्यक्रम, असम कृषि विश्वविद्यालय, गुवहाटी के वर्नीहट केन्द्र से सचांलित हो रहा है। इस केन्द्र ने वर्ष के दौरान कुल 1980 बकरियों पर, जो कि 209 किसानों द्वारा पाली जा रही थी, उत्पादकता सम्बन्धी ऑकडें इकट्ठा किये। बकरियों की संख्या वृद्वि 104% रही। कुल 507 ब्यॉत से, 839 बच्चे पैदा हुए, जो कि प्रति व्यॉत 1.65 बैठती है। वैसे तो व्यॉत पूरे वर्ष चलता रहता है, लेकिन इसकी सघनता अक्टूवर महीने में ज्यादा देखी गई है, जोकि कुल व्यॉत का 17% थी । दो व 3 बच्चें देने वाली बकरियों का प्रतिशत क्रमशः 48.7 एवं 8.1 रहा। इन बकरियों में मृत्युदर 6.8% रही जो कि मानकों के अनुसार थी। निमोनिया एवं कोलाइ इन्फेक्सन मृत्यु के मुख्य कारक रहे। कुल 17% बकरियों को आवारा कुत्ते व लोमडियों ने खा लिया। बीमार बकरियों का प्रतिशत लगभग 16 रहा। बीमारी का प्रमुख कारण परिजीवी प्रकोप था। वर्ष के दौरान कुल 13% बकरियों को बेचा गया तथा 1.2% बकरियों का निश्कलन किया गया। बकरियों के प्रथम बार वयस्क होने के उम्र व वजन, प्रथम व्यॉत पर

उम्र व वजन, व्याँत पश्चात गर्भ धारण करने का समय, व्याँत अंतराल एवं गर्भकाल क्रमशः 25.99±6.01 दिन 10.12±0.33 कि0ग्रा0 403.89±7.08 दिन 13.56±0.32 कि0ग्रा0 78.09±7.18 दिन 225.13±6.16 दिन एंव 147.55±0.66 दिन रहा। नर और मादा मेमनों का जन्म, 3, 6, 9 व 12 महीनों पर वजन क्रमशः 1.41±0.09, 1.14±0.03; 5.20±0.13, 4.96±0.07; 7.89±0.15, 7.53±0.18; 10.71±0.17, 9.87±0.16, 13.68±0.49, एंव 12.91±0.39 कि0ग्रा0 रहा। अनुवांशिक उत्थान हेतु कुल 16 नए बकरों का वितरण किया गया।

3. बरबरी बकरी इकाई, केन्द्रीय बकरी अनुसंधान संस्थान, मखदूम, फरह, मथुरा उ.प्र

बरबरी बकरी इकाई में वर्ष के शुरूआत में 673 बकरियॉ थी। इनमें 375 बच्चे जुड़ गये, ये बच्चे 240 बकरियों की ब्याँत से पैदा हुए थे। कुल संख्या वृद्धि 145% रही। वर्ष के दौरान मृत्युदर 3.8% एवं छटनी दर 5-7% थी। मेमनों का औसत वजन 3, 6, 9 व 12 माह में क्रमशः 1.54±0.02, 8.55±0.09, 13.40±0.16, 19.14±0.33 व 22.69±0.41 था। 90 व 140 दिनों का कुल दुग्ध उत्पादन एवं कुल दुग्धकाल क्रमशः 57.56, 85.16, 67.94 लीटर तथा 131 दिन था। बकरियों का प्रथम समागम के साथ–साथ वजन व उम्र, ब्याँत के समय उम्र एवं वजन तथा दो ब्याँत के बीच अंतराल तथा गर्भकाल क्रमशः 341.4±10.4 दिन, 18.4±2.7 कि0ग्रा0., 475.5±7.4 दिन, 21.9±4.6 कि0ग्रा0, 229.04±7.2 दिन व 144.1±2.3 दिन था। कुल मॉदा बकरियों की उपलब्धता के आधार पर 82% बकरियॉ गर्भित हुई। वर्ष के दौरान कुल 208 उन्नत बकरियॉ नस्ल सुधार के लिए बॉटी गई। बकरियों के विभिन्न पीढ़ियों की वंशावली के विश्लेषण से पता चला है कि झुण्ड में 20-27% अन्तःप्रजनन का स्तर था। वर्ष के दौरान कुल 4 उन्नतशील किसानों को उत्तम गुणवत्ता वाले बरबरी बकरियों के उत्पादन हेतु अंगीकृत किया गया। किसानों की बकरियों में कुल 93.3% बकरियॉ जीवित रही।

4. बंगाल बकरी इकाई, बिरसा कृषि विश्वविद्यालय, रॉची

इस केन्द्र ने बेकों जमशेदपुर जिला, पालाजोरी, टीको और चांमगुरू, जो कि रॉची में स्थित है, गॉवों को अंगीकृत किया हैं। वर्ष के दौरान कुल 46 बकरों का आदान प्रदान किया गया। स्थानीय खराब बकरों को या तो झुण्ड से हटा दिया गया या उनको बधिया कर दिया गया। इन गॉव में 886 बच्चे पैदा हुये तथा 345 मेमनों को बधियॉ किया गया। सभी बकरी पालाकों को आवश्यकता अनुसार टीकाकरण, परीजीवी नाशक तथा कुछ दाने की व्यवस्था करवाई गई। बंगाल बकरियों का औसत वजन जन्म 3, 6, 9 व 12 महीनों पर क्रमशः 1.28±0.06, 5.94±0.08, 9.15±0.15, 11.45±0.20 एंव 13.58±0.09 कि0ग्रा0 था। विभिन्न उपकेन्द्रो पर बकरियों का व्याँत प्रतिशत 86 से 91 के बीच रहा। एक, 2, 3 व 4 बच्चे देने वाली बकरियों का प्रतिशत क्रमशः 55.5, 43.8, 2.6 एवं 0.7 बेको केन्द्र पर रहा।

5. ब्लैक बंगाल इकाई, पश्चिंम बंगाल पशु एंव मत्स्य विज्ञान विश्वविद्यालय, कोलकाता

वर्ष के दौरान इस इकाई ने अपने उपकेन्द्रो का विस्तार किया। जिसमें इन्होने कृषि विज्ञान केन्द्र, दिघा, झाडग्राम ब्लौक के लोढीसुली जगह के कुछ गॉव अंगिकृत किए। इस केन्द्र में 638 बकरियों 1285 मेमनों जो कि 695 व्याँत से मिले थे, के ऑकडें प्राप्त किए। आनुवंशिकी सुधार हेतु विभिन्न उपकेन्द्रो पर 15 नए बकरों का वितरण किया। अंगीकृत गॉवों में कुल बकरियों की संख्या 1761 थी, जो कि वर्ष के दौरान बढ. कर 2257 हो गयी। वर्ष के दौरान बकरी संख्या में कुल 58% वृद्वि हुई तथा प्रति किसान बकरियों की संख्या 5.9 हो गयी जोकि पिछलें वर्ष के दौरान 2.5 थी। वैसे तो इस नस्ल में भी पूरे वर्ष व्याँत प्राप्त होता रहता है, लेकिन व्याँत की सघनता अगस्त से फरवरी महीनों के बीच ज्यादा होती है। प्रति व्याँत 1.86 मेंमनें प्राप्त हुए। यहॉ पर 1, 2 व 3 मेमनें पैदा करने वाली बकरियों का प्रतिशत क्रमशः 32, 53, व 13 रहा जबकि 2 प्रतिशत बकरियों ने 4 बच्चे भी दिये। इन मेमनों का जन्म, 3, 6 ,9 और 12 महीने पर औसत वजन क्रमशः 1.20±0.005, 4.99±0.03, 7.37±0.04, 9.84±0.06 व 12.41± 0.10 कि0ग्रा0 था। स्वास्थ संम्बधी प्रंबधन से कुल मृत्युदर 6.2% तक ला दी गई। लगभग 23% बकरियों को लाभ कमाने हेतु बेचा गया।

जिससे किसान द्वारा 4600 से 6000 रूपये तक का लाभ कमाया गया। वर्ष के दौरान औसत प्रथम बार गर्भ धारण एवं व्याँत के समय उम्र क्रमशः 237.54±5.07 एवं 383.23±5.31 दिन रही, जबकि पिछले वर्ष क्रमशः 304.47±23.77 एवं 439.17±24.67 दिन रही। व्याँत पश्चात गर्भधारण करने का औसत समय, गर्भकाल एवं व्याँत अन्तराल क्रमशः 91.94±3.06, 147.39±0.26 एवं 237.79 ± 3.04 दिन रहा।

6. चांगथांगी बकरी इकाई, शेरे कश्मीर कृषि विश्वविद्यालय, लेह केन्द्र

इस केन्द्र की भी स्थापना इस वर्ष हुई। पश्मीना उत्पादन करने वाली चांगथाजी बकरी नस्ल का अंगीकृत इस वर्ष के दौरान किया गया। इस केन्द्र ने खर्नक, समद व कुर्जूक गॉवों के 30 बकरी पालकों का पंजीयन किया जिनके पास कुल 8400 बकरिया थी। इनमें से 2750 मादा बकरियों एवं 70 बकरों के उपर ऑकडें इकटठा करने की दिशा में प्रयास किये गए। इस इलाके में खुरपका मुॅहपका, मुहारोग, अतिसार सीसीपीपी आदि प्रमुख बीमारियॉ पाई गई। गर्भपात भी देखा गया। इसके अलावा विश्वविद्यालय के आंचलिक केन्द्र पर चांगथगी प्रक्षेत्र की स्थापना की गई। जहॉ पर वर्तमान में 20 चांगथगी बकरियॉ और 2 बकरे रखे पाले जा रहे है।

7. गद्दी इकाई, पालमपुर कृषि विश्वविद्यालय, हिमाचल प्रदेश

गद्द्री हिमाचल प्रदेश एवं लगे हुए जम्मू और कश्मीर राज्य के तराई एवं पहाडी स्थानों में पाली जाने वाली मॉस के लिए एक उपयुक्त नस्ल है। इस नस्ल के बडे–बडे झुण्ड पाये जाते है जिसमें 50 से 300 तक बकरियॉ हो सकती है। यह नस्ल, ग्रीष्म ऋतु में हिमालय के पहाडों में प्रवास करती हैं। इनका प्रवास लगभग 6 महीने तक का होता है। इस नस्ल में सुधार एवं अनुसंधान कार्यक्रम वाई एस परमार हिमाचंल प्रदेश कृषि विश्वविद्यालय, पालमपुर के सहयोग से संचालित हो रहा है। इस केन्द्र नें 1197 बकरियों जिसमें 646 प्रौण मादा बकरियॉ थी, पर अनुसंधान कार्य किया। वर्ष के दौरान कुल 589 बच्चे पैदा हुए। 195 बकरियों की मृत्यु हुई तथा 427 बकरियों को लाभ कमाने हेतु बेचा गया। वर्ष के अन्त में कुल 1164 बकरियॉ प्रयोग में थी। कुल 25 नर मेमनों का चयन कर उन्हें विश्वविद्यालयों के प्रक्षेत्र पर पालने हेतु लाया गया। ये मेमने प्रौढ. अवस्था प्राप्त कर लेने के पश्चात बकरों के रूप में नस्ल सुधार हेतु वितरित कर दिये जाएगें। किसानों को बकरी स्वास्थ्य प्रवंधन सम्बन्धी सभी सेवाए प्रदान की गई। इनका झुण्ड विकास दर 104.7% रहा व मृत्युदर 10.9% रहा। दो बच्चे देने की बारबारंता 21% रही। प्रति व्याँत बच्चों का औसत 1.21 रहा। इन बकरियों में ज्यादातर ब्याँत नवम्बर व दिसम्बर में प्राप्त की गई ।

8. गंजम इकाई ओडी.सा कृषि विश्वविद्यालय, भुवनेश्वर

गंजम एक विशिष्ट गुणवत्ता वाली बकरी नस्ल है जो कि प्रायः वर्ष भर जंगलों या खेतों में ही प्रवास करती है और वही से अपना जीवन यापन करती हैं। इस नस्ल के भी बडे झुण्ड, जिसमें 500 तक बकरियॉ हो सकती हैं, देखे जाते हैं। जंगल में प्रवास के कारण इन बकरियों पर उत्पादकता संवधी ऑकडे इकट्ठा करना बहुत ही कठिन होता है। बहुत बडे झुण्ड होने के कारण, किसान बकरें और बकरियों को एक साथ रखते हैं जिसकी वजह से मेमनों के पिता की पहचान नहीं हो पाती। अतः ऐसे झुण्ड में आनुवंशिक विभिन्नता और समानता की पहचान कर पाना कठिन हो जाता है। अतः अनुसंधान हेतु कुछ छोटे बकरी पालकों को अंगीकृत किया गया। लेकिन ऐसे बकरी पालकों के पास उत्तम गुणवत्ता वाली बकरियों का अभाव हैं। बकरियों को चिन्हित करने हेतु, प्लासटिक वाले टैग लगा कर चिन्हित किया गया। अंगीकृत बकरियों को पीपीआर, इन्टरोटॉक्सिमिया, बकरी पोक्स के टीके लगवाए गये तथा परिजीवियों को मारने के उपाय भी किये गये। 1351 बकरियों का भार वृद्वि ऑकडे और 184 बकरियों के जनन ऑकडे भी लिए गए। इस प्रक्षेत्र पर कुल 2187 बच्चें पैदा हुऐ। आनुवशिक प्रगति का काम 15 उत्तम गुणवत्ता वाले बकरों की आपूर्ति एवं उपयोग से चल रहा है। बकरियों का औसत वजन जन्म, 3, 6, 9 व 12 महीनो पर क्रमशः 2.40±0.03, 7.51±0.06, 9.88±0.06, 14.52±0.10 एवं 18.44±0.16 कि0ग्रा0 रहा।

9. हिमालयन **बकरी** इकाई, भारतीय पशु चिकित्सा अनुसंधान, मुक्तेश्वर

यह इकाई भारतीय पशु चिकित्सा अनुसंधान संस्थान ,बरेली के मुक्तेश्वर, उत्तराखण्ड स्थित आंचलिक केन्द्र द्वारा संचालन किया जा रहा है। इसकी स्थापना इसी वर्ष की गई। केन्द्र ने, नैनीताल पिथोरागढ. जिले में बकरी पालकों का सर्वेक्षण किया तथा बकरी उत्पादन सवंधित मूलभूत ऑकडें इकटठा किये। इस क्षेत्र के बकरी पालके मुख्यतः असंगठित है और बकरियॉ अपना जीवन यापन चारागार के पोषण से ही कर लेती है। चौगरखा, यहा पाली जाने वाली बकरी का स्थानीय नाम है तथा यह पंतजा बकरी नस्ल से मिलती जुलती है। किसान इन्हें 2–30 की संख्या में पालते हैं। बकरिया मुख्यतः काले, भूरे, व सफेद रंग की होती हैं। प्रौढ बकरियों का वजन 15–20 कि0ग्रा0 के बीच होता हैं।

10. जमुनापारी प्रक्षेत्र, केन्द्रीय बकरी अनुसंधान संस्थान, मखदूम, मथुरा

जमुनापारी, भारत की एक प्रमुख दूग्ध उत्पादक बकरी नस्लों में से एक है और सीमित संख्या के कारण खतरे के कगार पर पहुॅच गई है। उसका उद्भव एवं विकास स्थल उत्तर प्रदेश के इटावा जिले का एक विकास खण्ड चकरनगर है जहॉ पर इनकी संख्या लगभग 5000–8000 के बीच मानी जाती है। अतः संस्थान का प्रक्षेत्र न केवल आनुवंशिक विकास में अपितु संरक्षण में भी महत्वपूर्ण योगदान दे रहा हैं। संस्थान में वर्ष के शुरूआत में 741 बकरियॉ थी और अंत में 747 बकरिया थी। वर्ष में 348 बच्चे पैदा हुए जिसमें 155 नर व 195 मादा मेमने थे। बकरी संख्या में वृद्वि का प्रतिशत 114 माना गया । इस नस्ल में वार्षिक मृत्युदर 3.9% जोकि सराहनीय था । उत्पादकता एवं स्वास्थ आधारित निस्काषन दर 3.12 प्रतिशत ही रही। वर्ष के दौरान 3, 6, 9, व 12 महीनों पर मेमनो का वजन क्रमशः 3.28, 12.77, 18.12, 23.55 एवं 28.311 कि0ग्रा0 था। मॉ के व्यॉत क्रम का प्रभाव उसके बच्चों के भार वृद्वि पर पड.ता है। संघन पद्वति मे पूर्ण शैक्षिक आहार देने के पश्चात 12 महीनों पर इन बकरियों का औसत बजन 45.7 कि0ग्रा रहा। बकरियों का प्रतिदिन भार वृद्वि 3–6, 3–9, 3–12, 6–9 एवं 6–12 महीनों पर क्रमशः 111.0, 115.3, 11.3, 119.9 एवं 111.5 ग्राम/दिन रहा। 6–9 महीने की उम्र में बकरों ने 152 ग्राम/दिन की दर से वृद्वि की। बकरियों का 90 व 140 दिन का दूध उत्पादन क्रमशः 78.07±2.37 एंव 110.67±3.78 लीटर रहा। प्रति व्यॉत 1.49 बच्चे प्राप्त हुऐ तथा 224 उन्नत बकरियों को नस्ल सुधार हेतु आवटित किया गया ।

11. मालाबारी इकाई, केरल पशु चिकित्सा एवं पशु विज्ञान विश्वविद्यालय, त्रिशूर

मालाबारी बकरी, दक्षिण भारत की एक प्रमुख द्वीकाजीय नस्ल है। वर्ष के दौरान 335 किसानों के 1336 बकरियों पर ऑकडें इकटठे किए गए। 1082 बकरियों का बीमा भी कराया गया। मालाबारी बकरियों का पालन ज्यादातर महिलाये करती है और इस कार्य में 66.5 प्रतिशत महिलायें अपना योगदान दे रही है। अंगीकृत गॉवों में बकरी संख्या में 87.4 प्रतिशत वृद्वि हुई। इस इलाके में किसान केवल 2–5 बकरियॉ पालते हैं जिसके कारण कोई भी सुधार कार्यक्रम चलाना कठिन हो जाता है। एक, 2, 3, एवं 4 बच्चे देने वाली बकरियों का प्रतिशत क्रमशः 44, 49, 6 व 0.3 रहा। इन बकरियों से औसतन 807 मि0ली0 दूध मिला। एक, 3, 6, 9, व 12 महीने पर इनका वनज क्रमशः 3.20±0.09, 8.65±0.20, 14.80±0.30, 19.45±0.54 व 21.80±0.90 कि0ग्रा0 रहा। बकरियों के प्रथम व्यॉत, उम्र एवं दो व्यॉत के बीच अंतराल क्रमशः 396.20±11.30 व 277.50±14.20 दिन रहा। कुल मुत्युदर 4.7 प्रतिशत आंकी गई। वर्ष के दौरान कुल 16 एक दिवसीय प्रशिक्षण आयोजित किये गये, जिसमें 395 किसानों को प्रशिक्षित किया गया। पांच उत्तम गुणवत्ता वाले बकरों को भी वितरित किया गया।

12. मारवारी इकाई, राजस्थान पशु चिकित्सा एवं पशु विज्ञान विश्वविद्यालय, बीकानेर

मारवारी बकरियॉ देश के सबसे कठिन एवं दूरूह जलवायु वाले स्थानों पर पाली जाती हैं। जिसमें जेसलमेर व बाडमेर जिलों के मशहूर रेगिस्तान शामिल हैं। इस वर्ष के दौरान, 2–3 नए उपकेन्द्र जो कि राजस्थान के चुरू एवं जोधपुर जिले में स्थित है को अंगीकृत किया गया। बकरियों की पहचान हेतु उनके कान पर टैग भी लगाये गये। 28 उत्तम उत्पादकता वाले नर मेमनो का चयन कर भविष्य में उत्पादन हेतु पाला जा रहा है। इनका वजन 3, 6, 9 व 12 महीने

पर क्रमशः 2.57, 8.47, 14.01, 19.05 एवं 26.18 कि0ग्रा0 रहा। इस केन्द्र ने बकरियों के स्वास्थ प्रवधन में अपना भरपुर सहयोग दिया।

13. उस्मानाबादी इकाई, निम्बकर कृषि अनुसंधान संस्थान, फलटन, महाराष्ट्र

उस्मानाबादी बकरियॉ, महाराष्ट्र के सोलापुर, सतारा, अहमदनगर जिले में पाई जाती है। वर्ष के दौरान 605 मादा बकरियों और उनसे प्राप्त 1176 मेमनों के उत्पादकता ऑकडे पर आधारित हैं। इन बकरियों की प्रति बकरी पालक औसत संख्या 3.22 थी। 15.20 प्रतिशत बकरियों ने साल के दौरान 2 बार ब्यॉत किया। इन बकरियों से औसत 1.96 बच्चे प्राप्त हुये। कुल मृत्यु दर 3.9 प्रतिशत रही। 3–6 महीने के 35% नर एवं 22% मादा बकरियॉ लाभ हेतु बेचे गये। बचे हुए मेमनो मे से 65 प्रतिशत नर एवं 44 प्रतिशत मादा, 6–12 महीने की उम्र में बेच दिये गये। तद्नुसार लगभग 40 प्रतिशत मादा मेमने प्रजन के लिए किसानों द्वारा रोक लिऐ गये। 1, 2, या 3 बच्चे पैदा करने वाली मादाओं का औसत दुग्ध 64.0±1.9, 97.8±1.6 एंव 131.4±3.3 कि0ग्रा0 रहा। इनका जन्म, 3, 6 व 9 महीने पर औसत वजन 64.0±1.9, 97.8±1.6 एवं 131.4±3.3 कि0ग्रा0 रहा। इस केन्द्र ने संरक्षण हेतु बकरों से कृतिम गर्भाधारण हेतु 2124 वीर्य ईकाइया हिमीकृत की गई। जिससे की प्रदेशिक स्तर पर इस नस्ल के बकरियों के संरक्षण में बढावा मिला।

14. सिरोही बकरी इकाई, केन्द्रीय भेड व ऊन अनुसंधान संस्थान, अविकानगर

सिरोही प्रक्षेत्र इकाई, केन्द्रीय भेड व ऊन संस्थान, अविकानगर द्वारा संचालित की जा रही हैं। प्रक्षेत्र में पाली जाने वाली बकरियों का प्रवधन अर्ध संघन पद्वति में किया जाता है यह पद्वति बकरियों के व्यवसायिक प्रंवधन के लिए महत्वपूर्ण विधियॉ बनाने में सहायता प्रदान करती है । वर्ष की शुरूआत में इस प्रक्षेत्र में कुल 657 बकरियॉ जिसमें 211 नर थे उपलब्ध थी । वर्ष के दौरान कुल 286 बच्चे पैदा हुऐ 138 नर एवं 89 मादा बकरियों का प्रजनन हेतु बेचा गया । वर्ष के अंत में कुल 663 बकरियॉ उपलब्ध थी । वर्ष 2009 से अब तक पैदा हुए मेमनों का औसत वजन जन्म, 3, 6, 9, 12 महीनों भर क्रमशः 3.04, 11.93, 18.39, 24.46 एवं 29.26 कि0ग्रा0। 0–3, 3–12 महीना की उम्र अवधि के दौरान मेमनों का औसत प्रतिदिन भार वृद्वि 98.7 व 68.9 ग्राम रहा। वर्ष 2009 से ब्यॉत बकरियों का 90 व 150 दिन का और कुल दूध एंव दुग्धकाल क्रमशः 74.64, 101.86 एवं 109.50 कि0ग्रा0, एवं 182.87 दिन रहा। कुल उपलब्ध वयस्क बकरियों मे से 99.4 प्रतिशत गर्भित हुई तथा 87 प्रतिशत बकरियों ने बच्चे दिये। प्रति व्यॉत 1.08 बच्चे पैदा हुऐ। यहॉ पर मृत्युदर निम्नतम 1.6 प्रतिशत रही।

15. सिरोही **बकरी** इकाई, राजस्थान पशु चिकित्सा एवं पशु विज्ञान विश्वविद्यालय वल्लभनगर, उदयपुर

यह इकाई किसानों द्वारा पाली जाने वाली सिरोही बकरियों के उन्नयन पर काम कर रही है । वर्ष की समाप्ति पर कुल 1652 बकरियॉ जिसमें 1125 मादा थी । इस दौरान कुल 488 बच्चे पैदा हुये बकरियों की संख्या में कुल 84.6 प्रतिशत वृद्वि आंकि गई । मेमनों का जन्म 3, 6, 9 व 12 महीनों का बजन क्रमशः 2.24±0.03, 13.69±0.20, 18.07±0.33, 21.69±0.61 एंव 26.68±0.64 कि0ग्रा0 था। दुग्ध भार वृद्वि एवं जनन संबंधित गुणो के वंशागतित्व दर भी निकाला गया। अंगीकृत किसानों को 28 उन्नत बकरे नस्ल सुधार के लिए दिए गए। इस दौरान सरकार के जनजाति उत्थान के लिए आवंटित धन का अनुपालन करते हुये इस इकाई ने 3 जनजाति गॉव को अंगीकृत किया तथा 18 बकरे जनजातीय गॉव में वितरित किये। बकरियों ने औसतन प्रति व्यॉत 1.25 बच्चे पैदा किये। 3 महीने पर चयन किये गऐ बकरों के भार का अंतर सामान्य से 4.8 कि0ग्रा0 अधिक था और उनके मॉ का दूध 9.57 लीटर ज्यादा था। यहॉ की बकरियों में अतिसार एवं निमोनिया बीमारी के मुख्य कारक थे।

16. सूरती **बकरी** इकाई, नवसारी कृषि विश्वविद्यालय, नवसारी, गुजरात

भारत की 4 प्रमुख दूध देने वाली नस्लों में से सूरती एक महत्वपूर्ण नस्ल है तथा इसकी संख्या इतनी कम हो गई की यह नस्ल खतरे के कगार पर है। अतः इसका संरक्षण करना आवश्यक हो गया है। नवसारी कृषि विश्वविद्यालय नवसारी को इस नस्ल की आंनुवाशिक विकास एवं सरंक्षण की जिम्मेदारी दी गई है इस केन्द्र में वर्ष 2013–14 की

वार्षिक वैज्ञानिक समीक्षा बैठक दिनॉक 29 सितम्बर, 2014 को आयोजित की गई। इस परियोजना के सभी घटक केन्द्रो के प्रभारी वैज्ञानिकों ने अंगीकृत गॉवों का भ्रमण किया तथा दमन स्थित उपकेन्द्र पर जा कर, मौके पर हो रहे बकरी पालन व्यवसाय में बदलाव के बारे में जानकारी प्राप्त किया। इस केन्द्र ने अपने परिश्रम से एक बडी बकरी दूध विधॉए समिति का गठन किया है जो कि एक प्रंसशनीय कार्य है। यह परियोजना पूर्णतः जनजातीय समूह के गॉव में चलाए जा रही है। यहॉ पर कुल 18 भ्रमण एवं 21 प्रर्दशनियॉ आयोजित की गई जिससे की किसानों की क्षमता में विकास हुआ। 8 नए उन्नत सूरती बकरों को गॉव में वितरित किया गया एवं 20 बकरों को आगे वितरण हेतु तैयार किया जा रहा है। 5–6 पीढियों के सतत् प्रजनन सुधार कार्यक्रम के बाद न केवल सूरती नस्ल अनुरूप गुण रखने वाली बकरियों में आशातीत वृद्वि हुई बल्कि उनकी उत्पादकता में भी सुधार देखा गया। शुरूआत के ऑकडों के तुलना मे वर्तमान बकरियों के दुग्ध उत्पादन में 14.1% वृद्वि मापी गई। सूरती नस्ल की बकरियॉ का औसत वजन जन्म से 3, 6, 9, व 12 महीने पर 2.0±0.24(518), 8.08±0.10(335), 13.70±0.20(247), 19.67±0.23(208) एवं 23.19±0.32(92) कि0ग्रा0 था। इन बकरियों की प्रति व्यॉत 1.41 थी। कुल मृत्यु दर 5.5 प्रतिशत आंकी गई। जिससे प्रतीत होता है कि स्वास्थ्य संवंधी तकनीकी का उपयोग प्रभावी रहा है। कुल मिला कर इस केन्द्र ने सूरती नस्ल की बकरियों के आनुवांशिक सुधार एवं सरंक्षण में आशातीत सफलता प्राप्त की है।

17. उत्तराखण्ड बकरी इकाई, गोविन्द वल्लभ पंत कृषि एंव प्रौद्योगिकी विश्वविद्यालय, पंतनगर, उत्तराखण्ड

बारहवीं पंच वर्षीय योजना में स्वीकृत 4 इंकाईयों में उत्तराखण्ड इकाई भी एक है। यह इकाई गोविन्द वल्लभपंत कृषि विश्वविद्यालय द्वारा की जा रही है। इस केन्द्र वर्ष के दौरान एक नई नस्ल के पंजीयन में सफलता प्राप्त की जिसका नाम **पंतजा** रखा गया है। अतः यह इकाई पंतजा नस्ल की बकरियों पर आधारभूत ऑकडे. इकट्ठा एवं उनके आंनुवंशिक सुधार में बल देगा। इस इकाई ने 39 गॉव का सर्वेक्षण किया और उसमें से जिसमें पंतजा बकरियॉ पाई जाती है, 4 गॉवों का चयन किया । पंतजा नस्ल की बकरियॉ छोटे, मध्यम आकार के मॉस के लिए उपयुक्त नस्ल है इनका रंग काला भूरा व सफेद है व 14 – 15 महीने के पश्चात व्यॉत आरंभ कर देती है। लगभग 17 प्रतिशत बकरियॉ 2 या 3 से ज्यादा बच्चे देती हैं। केन्द्र ने 9 उन्नत बकरों को गॉव में नस्ल सुधार हेतु वितरित किया तथा इस परियोजना को चलाने के लिए मूलभूत सुविधाओं का विकास किया गया।

18. संगमनेरी बकरी ईकाई, महात्मा फूले कृषि विद्यापीठ, राहुरी

संगमनेरी बकरियों पर सुधार कार्यक्रम में कुल 1348 वयस्क मादा बकरियॉ पंजीकृत की गई, जबकि इस केन्द्र के शुरूआत में केवल 500 बकरियॉ पंजीकृत हुई थी। कुल 48 प्रजनक बकरों को वर्ष के दौरान उपयोग में लाया गया, जिससे 1909 बच्चे पैदा हुये। 1, 3, 6, 9 व 12 महीनो का वजन क्रमशः 4.98±0.05 (9782), 9.18±0.09 (8420), 13.97±0.20(3198), 18.36±0.26(17.88) एवं 22.50±0.33 (1184) कि0ग्रा0 था। प्रथम गर्भ धारण करने की उम्र एवं प्रथम व्यॉत पर उम्र में अपेक्षित कमी आई जोकि क्रमशः 309 या 407 दिन रही। दो व्यॉत का अंतराल का समय घट कर 238 दिन हो गया। इन बकरियों ने प्रति व्यॉत 1.83 बच्चे पैदा किये। इन बकरियों का 90 दिन का औसत दूध उत्पादन 92 से 97.6 हो गया। 9–12 महीनों पर बकरियों के भार में भी 10–14 प्रतिशत की वृद्वि देखी गई जबकि दूध में 55.5 प्रतिशत की वृद्वि पाई गयी। संगमनेरी बकरियॉ अपनी क्रम संख्या के कारण विलुप्त होने के कगार पर आ गई थी। इस परियोजना के प्रयास से इनकी संख्या में 400 प्रतिशत वृद्वि पाई गई । लगभग इस बकरियों के संरक्षण हेतु **राष्ट्रीय पशु आनुवांशिकी संसाधन व्यूरो, करनाल** को 5000 वीर्य नमूने दिये गये जो कि कम तापमान पर सदियों तक सुरक्षित रखे जा सकते हैं। इस केन्द्र ने भी आनुवांशिक सुधार एवं संरक्षण में आशातीत सफलता पाई।

अखिल भारतीय बकरी सुधार समन्वित अनुसंधान परियोजना ने देश के 9–10 नस्लों के आनुवंशिक सुधार में महत्वपूर्ण योगदान दिया तथा किसानों तक आधुनिक ज्ञान एवं तकनीकियॉ पहुॅचाई जिससे की उनकी क्षमता में विकास हुआ। जमुनापारी, सुरती, संगमनेरी, बरबरी जैसी नस्लें जिनकी संख्या खतरे के कगार पर पहुॅच गई थी। जिनके संरक्षण में महत्वपूर्ण योगदान दिया। जिससे कि किसानों के बीच इनकी संख्या में 10–30% की वृद्वि हुई । इस परियोजना के तहत नस्ल अनुरूप उत्तर आनुवंशिक क्षमता बाले

नर मेमनों का विकास हो रहा है जिससे की अन्य किसान इन मेमनों को प्रजनक बकरों की तरह उपयोग में ला रहे है। इसके अलावा नस्लों की उत्पादकता जैसे मॉस, दूध व जनन सम्बन्धि गुणों में सकारात्मक सुधार आया। ऐसे सुधारों की बजह से किसानों को बकरी पालने से होने वाली आय में गुणात्मक सुधार आया।

A. Research Evaluation Proforma: 2014-15

Name of the Centre - Project Coordinating Unit, CIRG, Mathura **PI -** Dr. S. K. Singh, Principal Scientist (AGB) &Incharge, AICRP on Goat Improvement **PC'S evaluation:** ~~Very good (A); Good (B); Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps /constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
1. To monitor 18 units of AICRP on Goat Improvement for implementation of technical programme. 2. Funding and budget monitoring. 3. Preparation of centralize information system. 4. Convene, Annual Review meet, (ARM) Facilitate Units, Implement rcomendations of ARM. 5. Evaluate performance of Various Units	1. Strengthened PC unit by appointing staff and creating infrastructure. 2. Developed information management system on AICRP om Goat improvement. 3. Assisted organisation in establishing four new units. Analyse research findings of various AICRP Units. 4. Monitoring of 18 units through personal visits/ various other methods. 5. Report writing, Evaluation of Units.	i. Most Units were persuaded to perform better. Performance of most units are not only satisfactory but awarded 'A' grade. ii. The Information management system on Goat production research is ready for release and testing. This information system was long due.	i. Creation of Animal evaluation facility ii. Testing and commissioning of information system on AICRP. iii. Monitoring and evaluation of 18 centres. iv. Create a document on AICRP on Goat Improvement since inception. v. Energise poor performing Units in consultation with University/ Institute Authorities.	The unit needs further strengthening with man power (One RA), Finance Wing and from Purchase section.

Name of the Centre - Andaman Goat Unit, CIARI, Port Blair **PI -** Dr. Jay Sunder, Principal Scientist (Microbiology) **PC'S evaluation: Very good (A);** ~~Good (B); Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
To establish infrastructure, survey village and farmers and register selected farmers for initiation of the project and implementation of the technical programmes.	Andaman local goat field unit was established during this year. Goat clusters were adopted in Port Blair and Ferrargunj tehsils based on surveys conducted. Subsequently, farmers and their goats were registered. So far a total of 197 faremers have been resigetred under the projects. . A total of 8 elite Andaman local goat male bucks were purchased from the farmers field and is being reared at Institue farm. .A flock strength of 2649 goats have been recorded, of which 1656 were female and 993 male and adult does were 1033. During the period a total of 64 goats died and 93 were sold.,. Pefformance were recorded .Five awareness programmes on "Scientific rearing of goat for improving productivity" were conducted.	i. This unit has been able to successfully establish the centre and produced valuable baseline information on goats and goat farmers. ii. The unit has registered farmers and goats for implementing the technical programme. iii. For the first year of inception, the work done by this unit is praise worthy. iv. The project is running in right direction and overall progress is satisfactory	i. To create a document on economic status of Goat farmers and feasibility to improvement goat productivity. ii. To register farmers, record the performance of goats, provide health care and superior bucks for improvement. iii. Preliminary Selection of 30--50 bucks based on type of birth and weaning weight to develop them as future buck	The unit has done very good work in its first year of the project. The Unit should have an animal breeder as active collaborator.

Name of the Centre - Assam Hill Goat Unit, AAU Khanpara, Guwahati **PI -** Dr. N. Nahardeka, Professor (AG&B), **PC'S evaluation: Very good (A); ~~Good (B); Poor(C)~~**				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
1. The mortality up to weaning was high and the unit need to undertake suitable health and limit it to permissible limits. 2. Breed characteristic, classification and data may be generated by the unit and submitted for evaluation by NBAGR, Karnal. 3. Creation of Self Help Groups involving women should be promoted in the adopted area. 4. Impacts analysis of improved breeding and health cover facilities should be carried out and documented.	The project is managed from the Goat Research Station, Burnihat, Kamrup campus of the university. There were 1980 goats from amongst 209 beneficiaries distributed in the four field clusters. The population growth was 104.23% during the year 2014-15. A total of 839 kids were born from 507 kidding with a kidding rate of 1.65. The highest kidding, 86 was observed in the month of October producing 152 kids. The twin and triplet kidding were 48.72 and 8.09 percent respectively during the year 2014-15 as against 39.80% and 8.6% in the previous year. The overall mortality rate was 6.82%. The major causes of mortality were pneumonia 21.63% followed by Colibacillosis 19.29%. Predation by stray dogs and wild foxes was reported to be another important cause of mortality	i. This unit has been able to demonstrate positive impact on production of goats being reared by farmers. ii. Due to technical interventions the population growth of goats was more than 100%. iii. It has been able to significantly reduce diseases through implementing health control measures. The production and productivity of goats got significantly improved by implementing scientific goat husbandry practices. iv. The project is running in right direction and overall	i. Identification, selection and rearing of approximately 50 kids for future bucks. The selection should based on type of birth and weaning weight. ii. Distribution of superior bucks amongst farmers of adopted villages and also to the goat farmers of the state for genetic improvement purpose. iii. Organization of animal health, vaccination and deworming camps, trainings to the farmer in the field units. iv. Establishment of elite multiplier flocks. v. Development and execution of a health and fodder calendar. vi. 6. Documentation	Very good work has being carried out by the unit and this project has been able to show a positive impact on economic gain of the farmers as well as on production and reproduction of goats.

	with 16.37%. The average morbidity was 15.88%. Dermatitis, itching 19.60% being one of the major cause of suffering followed by pneumonia 12.06%. During the period under report, 324 (12.93%) goats were sold and 31 (1.24%) were culled. The average family income from the goatery increased to Rs. 3525.12 from Rs. 3,461.72 recorded in the year 2013-14. The total income in the four field clusters were Rs. 7, 36,750.00. To avoid inbreeding and to introduce genetic variability into the population, 16 superior bucks were distributed. Exchange of bucks between the field units to avoid inbreeding is also practiced on a regular basis. • The unit has been able to arrest and reduce the kid mortality. • The breed characterization work is in progress. • Self helped groups were created. • Impact analysis is being carried out.	progress is satisfactory.	of the breed and initiation for registration.	

Name of the Centre - Barbari Farm Unit, CIRG, Makhdoom, Farah, Mathura **PI -** Dr. M.K. Singh, Principal Scientist (AG&B) **PC'S evaluation: Very good (A);** ~~Good (B); Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
i. The budget utilization was extremely low. Efforts should be made to utilize budget. ii. The Unit has to adopt two–three KVK's/adequate farmers for validation of technologies and breed improvement in farmers flock. Necessary funds from allocated budget may be used for this purpose iii. Institute based units should expedite establishment of multiplier flocks in time frame manner. During current year they should establish at least 10 such units in the breed habitat. iv. Necessary health care to goats in adopted farmers will be provided under	The annual flock strength of Barbari goats for the year 2014-15 was 673 and 375 kids were born out of 240 goats. The population growth was 145% and overall mortality and culling of the flock was 3.8% and 5.73%. The overall least squares means of body weight of kids at birth, 3, 6, 9, and 12 month of ages for the year 2014 were 1.54±0.02, 8.55±0.09, 13.40±0.16, 19.14±0.33 and 22.69±0.41 kg, respectively. Kid's born during autumn season attained significantly higher body weight at 3, 6, 9 and 12 months of ages. Single born kids were significantly heavier than those born as multiple. Similarly males were significantly heavier than their counterpart's right from birth to 12 months of ages. The overall mean for 90 days milk yield, 140 days milk, total lactation yield, average daily milk yield and lactation length for the does kidded in 2014 were 57.56±1.15, 85.16±2.32, 67.94 ±1.54 liters, 519±9 ml and 126±1.56 days, respectively. Does kidded during spring season performed significantly better for lactation traits than those which kidded in autumn season. Overall	i. This project is contributing significantly in conservation and genetic improvement of goats in its habitat. ii. Eighteen to 20 generations of selection have bought positive genetic trend. And was able to precisely estimate genetic and phenotypic variances, co-variances and genetic parameters. iii. The unit is to increase the number of adult dose as per technical programme also strengthen its farmers based research activities.	i. Register farmers either through KVK's or directly for technology validation and improvement of goats in the farmers flock, ii. Distribute approximately 20-30 bucks to farmers flock for breeding purpose in adopted area under this project on the line of field unit. iii. Necessary health care to goats in adopted farmers will be provided under the project iv. Estimation of genetic progress and breeding value of animals. v. Documentation of the breed.	i. The unit has very good animals which have undergone about 15-17 generation of selection however there is a need to improve the performance of goats by providing adequate and qualified manpower, timely inputs such as feed, fodder and medicines. ii. The field work is also to be given serious thought as it suffers from lack of infrastructur e i.e vehicle and manpower.

the project.	mean for age and weight first mating, age and weight at first kidding, first kidding interval & gestation period were 341.4±10.4 days, 18.4±2.7kg, 475.5±7.4days, 21.9±4.6kg, 229.04±7.2 days and 144.1±2.3 days, respectively. Breeding efficiency on the basis of does available and does tupped were 82.1 and 83.2%. Kidding % (tupped goat), kids with multiple birth and litter size (number) was 145.3, 68%, and1.6, respectively. During the year 208 goats (162 male and 46 female) were supplied for breed improvement to farmers and various goat improvement & development agencies. A total of 573 goats of different age groups nutritional and general health status by using BCS method. Results revealed that majority (>91%) of the goats in the herd were in good nutritional and health status reflecting better management practices. The data on 10450 goats during 1985 to 2014 were used for pedigree analysis using ENDOG version 4.8. The average inbreeding coefficient (fi) for the whole analyzed pedigree and for inbred animals was 2,27% and 4.4%, respectively. Four multiplier flocks of Barbari goats were established, 2 at Mathura and one each at Agra and Dholpur (Rajasthan). Overall survivability at multiplier flocks was 93.3%.			

Name of the Centre - Bengal Goat Unit , BAU , Ranchi **PI -** Dr. L. B. Singh, Professor (AG&B) **PC'S evaluation: Very good (A);** ~~Good (B); Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
1. The bucks used should be evaluated for their breeding value and semen should be preserved. 2. The unit to adopt farmers with bigger flocks and to include areas where the animals have comparatively higher body weights.	There were four center of AICRP on Goat improvement namely Beko (Jamshedpur), Palajori (Deoghar), Tiko (Lohardaga) and Chamguru of Ranchi districts they are functional. During the year 2014-15, 46 bucks from Beko,Palajori, Tiko and Chamguru centre were exchanged among the farmers after testing the semen quality. Local bucks and male kids were culled /castrated to prevent matting by them. During the reporting year a total of 886 kids were born. During the year 2014-15, a total of 345 kids were castrated at centres. All the goats of all centers were provided with timely health coverage like vaccination, Deworming and dipping and supplementary feeding. At the end of March 2015, there were 350, 669, 517 and 473 goats at Beko, Palajori, Tiko and Chamguru centres, respectively. The overall body weights were recorded at birth, 3 month, 6 month, 9 month and 12 month of age and are found to be 1.28±0.06,5.94±0.08, 9.15±0.15, 11.45±0.20 and 13.58±0.09 kg respectively. The kidding percentage based on does tupped and does available was 91.53 and 90.07 at Beko centre. The corresponding values for Palajori, Tiiko and Chamguru centre were 87.23% and 86.25%, 88.23 and 86.52, 90.54 and 89.12, 91.32 and 89.86 respectively. Kidding patterns single, twin, triplet and quadruplet were recorded as 55.51, 43.78, 2.59 and	i. This unit has adopted 4 clusters rich in black Bengal goat genetic resources and producing genetically superior goats for breed improvement. ii. This unit has been able to demonstrate positive impact on production of goats being reared by farmers. iii. It has been able to significantly reduce diseases viz. Goat pox, Enterotoxim ea and PPR through implementing health control measures. The	i. Register farmers either through KVK's or directly for technology validation and improvement of goats in the farmers flock, ii. Distributed 20-30 bucks to farmers flock for breeding in adopted area. iii. Necessary health care to goats in adopted farmers provided. iv. Estimation of genetic progress and breeding value of animals. v. Documentation of the breed and impact evaluation of the programme.	This unit has adopted four clusters at distant locations to cover up genetic variations available in the breed the animals have been properly identified and performance recording is as per schedule. The impact of implementation of various technologies is visible in the field the progress of project is satisfactory.

	0.70 %, for respectively at Beko centre 53.21, 43.75, 2.32 and 0.72% respectively at Palajori centre 52.94, 43.55, 2.82 and 0.69%, respectively, at Tiko center 53.00, 43.63, 2.82 and 0.55 %, respectively at Chamguru centres. Body weights at various stages have increased over the base population due to regular vaccination, deworming and dipping.Improved feeding practices have resulted in improved health status of the goats. Mortality was reduced up to 9 percent at the farmer flock. A five day farmers training programmes were organized during 9 to 13 March 2015 at Small Ruminant Instructional Farm, R.V.C Kanke for farmers of all the centers. Farmers started keeping goat in separate house Farmers have started selection of male and female and mating their goats with improved black Bengal Buck. Due to intervention of AICRP on goat farmers are raising more goats resulting more income from goats. Farmers of different centers earned Rs 985200/= 00 from sale of 349 goat during the reporting year. Two NGOs have purchased 13 breeding bucks from centers. 5 bucks have been sold to KVK, Jagarnathpur W. Singhbhum, Jharkhand. A number of goat breeder also purchased breeding bucks from our centers. • The unit adopted a new cluster to cover tribal farmers having quality animals with large flocks. • Bucks are being evaluated and selected on the basis of their genetic merit.	production and productivity of goats got significantly improved by implementing scientific goat husbandry practices. iv. The project is running in right direction and overall progress is satisfactory.		

Name of the Centre - Black Bengal Goat Unit , WBUV & F S, Kolkata **PI –** Dr. P.K. Senapati, Dean and Professor (AG&B), **PC'S evaluation:** ~~Very good (A);~~ **Good (B);** ~~Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
i. Efforts should be made to improve the production performance of goats in adopted area. ii. As adopted villages were in close vicinity, the Unit should adopt another area with larger flock size. This new area preferably be close to a KVK of the University for operational ease and in tribal area. ii. The budget provisions to be looked into by PC, especially under Salary heads *vis-a-vis* post allotted to this Unit.	During 2014-2015, a new village Beliapukur Murshidabad district was adopted in collaboration with KVK Digha. Another cluster in Jhargram Block of West Midnapur having tribal farmers was added with 217 registered. Does, The production performance of 638 does and 1285 kids born from 691 kidding were recorded. Twenty two bucks were purchased on basis of 6M body weight and prolificacy of their dams. Out of these 15 new bucks were distributed in the village units. The flock strength in the beginning was 1761and at the end of year was 2257. On the basis of initial doe annual population growth was 57.93%. The average flock strength in the farmers flock increased to 5.94 from 4.50 in previous year. During 2014-15 the average age at first service and kidding were recorded as 237.54	i. This Unit is one of the old units and has shown varying impact on goat production and productivity and lack lustre performance of goats. ii. To boost project activities Incharge AICRP, visited the centre and met the honourable VC, the Director Research and all the project staff. iii. With the intervention of the Incharge AICRP the	i. Register farmers either through KVK's or directly for technology validation and improvement of goats in the farmers flock, ii. Distribute approximately 20-30 bucks to farmers flock for breeding purpose in adopted area under this project on the line of field unit. iii. Necessary health care to goats in adopted farmers will be provided under the project iv. Estimation of genetic progress and breeding value of animals. Documentation	This is one of the oldest unit having seen ups and downs in its performance. This unit needs to give serious thought and do needful in improving its performance. Manpower deployment is also essentially required. In other case possibilities will be explored to transfer the project to any of the ICAR institutes located at Kolkata. The performance of this unit needs further improvement. SAome improvement was seen over previous years

v. Presentation should be made as per format supplied by Coordinating Unit. v. Work should be carried out strictly as per technical programme.	± 5.07 days and 383.23 ± 5.31 days respectively; the respective values were 304.47 ± 23.77 days and 439.17±24.67 days in 2013-14.The average service period, gestation period and kidding interval was 91.94±3.06 days, 147.39±0.26 days and 237.79 ± 3.04 days in all village units during 2014-15. The kidding rate was 1.86 %. Percent single, Twin and triplet kidding were 31.69, 52.82 and13.31.Few quadruplet kidding (2.17 %) were also observed. With the intervention of health care and preventive the kid mortality (upto 12 month) has been restricted to 6.01%with overall mortality of 6.19 %. In marginal (upto 20 katha land), small (20 - 40 katha land) and medium (above 40 katha land) farmer's annual income was around Rs. 4603.77±267.62, Rs. 4636.74±468.24, Rs. 5961.84±698.00 respectively. Animals sold by the farmers are 23.14 % in 2014-15. The average annual income from a doe has substantially increased to Rs. 2790.00 in 2014-15. The average annual income of a farmer has been recorded as Rs. 4820.12±225.27 in 2014-15.	project work may get a boost. iv. The unit need to show improvement in its activities and in implementing the technical programme.	of the breed and impact evaluation of the programme.	performance

Name of the Centre - Changthangi Goat Unit, SKUAST-K, Leh **PI -** Dr. Feroz Seikh, Assistant Professor (AG&B) **PC'S evaluation: Very good (A);** ~~Good (B); Poor(C)~~ **- A**				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
To establish infrastructure, survey village and farmers and register selected farmers for initiation of the project and implementation of the technical programmes.	This is a newly established unit. Kharnak, Samad and Korzokvillages were adopted where in a 30 families were registered. The overall Changthangi goats from 30 registered families were 8400. In all 2750 breedable does and 70 breeding bucks were followed/ monitored. A farmer data register was issued to each family so that all the data related to goat production could be recorded by enumerators of the area from time to time. Health management issues were taken up. The major goat diseases observed were, FMD, CCPP, and contagious ecthyma, coccidiosis in kids, conjunctivitis, and abortion of unknown etiology. The endoparasitic diseases affecting the goats were liver fluke infestation, a flock of 20 Changthang does and 2 Changthangi breeding bucks were maintained as nucleus flock. The performance and pedigree recording is in progress.	i. This is newly established unit and operational in one of the most challenged climates of the world. Therefore need extra energy and resources in getting the work done. ii. This unit has been able to successfully establish the centre and register farmers maintaining hundreds of goats which are migratory. The unit has to produce baseline information on goats and goat farmers. iii. For the first year of inception, the work done by this unit is praise worthy. iv. The project is running in right direction and overall progress is satisfactory.	i. To create a document on economic status of Goat farmers and feasibility to improvement goat productivity. ii. To register farmers, record the performance of goats, provide health care and superior bucks for improvement. iii. Preliminary Selection of 30--50 bucks based on type of birth and weaning rate.	This is a newly established unit at one of the extreme climates at Leh cold desert but having excellent goat genetic resources. The unit has done very good work in registering farmers and goat flocks. The unit has to exert more in undertaking pedigree, performance recording and technology validation activities as large flocks remains in migration across difficult hilly terrains for considerable period of time.

Name of the Centre - Gaddi Field Unit, YSPHPKV, Palampur (HP) **PI -** Dr. P.K. Dogra, Professor (AG&B) **PC'S evaluation: Very good (A);** ~~Good (B); Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
Unit should devise mechanism to follow-up goats during migration for performance recording and for the provision of requisite technical inputs. Study the marketing patterns and farming system while goat is in migration as well as in stationary flocks.	The opening balance was 1197 goats including 646 breedable does. During the year, a total of 589 young kids were added, 195 animals of different age groups died and 427 animals pertaining to different age groups were sold by the owners. The closing balance as on 31.03.2015 was 1164. For production of breeding bucks 25 male kids of 4-6 months age group were purchased on the basis of performance from adopted farmers. These male kids were then transferred to Palampur center for subsequent rearing up to the age of sexual maturity, following all standard management practices. After final selection, a total of 16 males were finally distributed to 15 different farmers	i. This unit operates mostly in tribal areas and one of the most challenging climates viz deep Himalayan region of the world. Gaddi Goats migrates from lower foot hills to high altitudes therefore making it difficult to follow animals and provide technological inputs. ii. Genetically superior animals were distributed to the farmers for producing genetically superior goats. iii. This unit has been able to demonstrate positive impact on production of goats being reared by farmers. iv. It has been able to significantly reduce diseases through implementing health control measures. The production and productivity of goats got significantly improved by	i. Register farmers either through KVK's or directly for technology validation and improvement of goats in the farmers flock, ii. Distribute approximately 20-30 bucks to farmers flock for breeding purpose in adopted area under this project on the line of field unit. iii. Necessary health care to goats in adopted farmers will be provided under the project iv. Estimation of genetic progress and breeding value of animals. v. Documentation of the breed and impact evaluation of the programme. vi. Follow-up action plan for performance recording when goats are on migration to high altitudes. vii. Documentation	This unit also works in challenged climates and topography. Large goats flocks remains in migration making it difficult to record the performance and pedigree. Even then the unit has taken good shape and is able to show its impact on economy of the goat farmers and productivity of the goats. Valuable information is being generated on this breed. The progress is satisfactory.

	as a breeding input. In addition, 39 male kids were also purchased during March, 2015 for the distribution as breeding buck to the farmers during financial year 2015-16 and are being reared at Palampur center. Strategic supplementary feeding was also provided in the form of mineral mixture (180 Kg) and concentrate feed (24 qtls.) supply.. The overall population growth was observed to be 104.73%. The overall mortality incidence was found to be 10.92%. The incidence of twin birth was recorded 21.19%. The kidding rate of the flocks was observed to be 1.21%. Maximum kidding was recorded in the month of November (187 kids) and December (148 kids). • The unit has put on infrastructure in place of following of the goats in migration. • Necessary data is being collected to study the marketing patterns.	implementing scientific goat husbandry practices. v. The project is running in right direction and overall progress is satisfactory.	on Impact of the project, production and economic status of farmers.	

Name of the Centre - Ganjam Field Unit, OUAT, Bhubaneshwar **PI -** Dr. D. K. Karna, Associate Professor (AG&B) **PC'S evaluation:** ~~Very good (A); Good (B);~~ **Poor(C)**				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
i. The Unit should strengthen the health center at each cluster and post staff over there. ii. Animal identification and performance recording should be followed as per technical programme.	Three new villages Bharasa, D. Guhariapat and K. Guhariapat in the Khallikote cluster was adopted last year and 10 farmers were registered respectively belonging to the scheduled tribes(ST). All the breedable does of the newly adopted farmers were identified with poly urethane plastic tags. Action was initiated for starting a new cluster at Bhanjanagar and nearby area for taping the genetic variability of the Ganjam goats. Eleven young sleeted bucks were provided to three farmers. The kid mortality always remained below 6 per cent over the year and whereas last year it was 10.47 per cent. This year there is substantial reduction in kid mortality which stands at less than 6.0 per cent. A total of 1351 goats were recorded for the growth traits and 184 recordings were done for the reproductive traits. Beside this 320 adult goats were recorded for the growth and morphometric traits as per their dentition groups. The overall	i. This Unit is one of the old units and has shown varying impact on goat production and productivity and few times lack lustre performance of goats. ii. To boost project activities Incharge AICRP, visited the centre and met the honourable VC, the Director Research and all the project staff. iii. With the intervention of the Incharge AICRP the project work may get a boost. iv. The unit need to show	The Unit has to post qualified staff to the project area and implement the technical programme properly. The animal identification is to be done on priority. About 100 male kids are to be identified on the basis of type of birth and weaning weight and selected as future bucks for improvement of breed	Over the years the performance of this unit has been at "average" scale it appears that neither the university authorities nor the officials responsible to implement the project are serious about the project implementation. The Ganjam breed has got great potential and there are several ICAR institute located at Bhubaneshwar city. Therefore, possibilities to shift the project from the university to any of the ICAR institute will be explored if unit doest show any improvement this year.

	means of body weights of goats were 2.40 ± 0.03, 7.51± 0.06, 9.88±0.06, 14.52± 0.10 and 18.44 ± 0.16 for birth,3, 6, 9 and 12 month of age respectively. There has been improvement of 2.64 kg for the 9 month body weight till the current year as compared to the base yea r(2001) and improvement of more than 6.01 kg has been observed in the yearling body weight over the base year. The number of kids born were 2187 from 3456 breedable does from all the three centres of Chhatrapur, Rambha and Khallikote which is kidding percentage increased from 60.2 percent last year to 63 percent in the current year. The unit has establish health centres at most clusters. The animal identification is difficult in large flocks however unit is adopting smaller flocks through such flocks are poor in health.	improvement in its activities and in implementing the technical programme.		

Name of the Centre - Himalayan Goat Unit, IVRI, Mukteshwar **PI -** Dr. A. K. Sharma, Principal Scientist**,** **PC'S evaluation:** ~~Very good (A); Good (B);~~ **Poor(C)**				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
To establish infrastructure, survey village and farmers and register selected farmers for initiation of the project and implementation of the technical programmes.	All India Coordinated Research Project (AICRP) on "Himalayan Goat Unit" was initiated at Temperate Animal Husbandry division, Indian Veterinary Research Institute, Mukteswar campus on 14th June, 2014 with objective of Himalayan (Chaugarkha) goat improvement and enhance its productivity, which in turn to improve livelihood of local farmers as this goat adopted very well in Kumaon region based mid Himalayas of Uttarakhand. To map the breeding tract and distribution of Chaugarkha goats, surveys were conducted in various places of three districts, namely Dhol, Jhal Dungra (Lamgarha block), Khola, Gandhak, Mirtola (Dhauladevi block) of Almora district (original breeding track of Chaugarkha goats), Talle and MalleDeeni, pahadpani, Saspani (Dhari block), Supi, Bichgali (Ramgarh block) of Naintal district and Gangolihat (Gangolihat block) of Pithoragarh district. After survey, it has been found that Chaugarkha goats mainly distributed these areas, therefore, Khola, GandhakMirtola(Dhauladevi block) has been identified as	i. This unit has been partially successful in conducting survey, establish the clusters and produced baseline information on local goats and goat farmers. ii. The unit was not able to record performanc e utilize the fund allocated to it giving a negative impact. iii. The project is running in right direction and overall progress is satisfactory .	i. To create a document on economic status of Goat farmers and feasibility to improvement goat productivity. ii. To register farmers, record the performance of goats, provide health care and superior bucks for improvement . iii. Preliminary Selection of 30--50 bucks based on type of birth and weaning rate.	In the first year enough money was provided for establishing infrastructure and deployment of the staff at this Unit. This unit has not been able to undertake both jobs satisfactorily. There is a need of serious thinking from institute authorities to develop infrastructure, register farmers, record the performance of the animals on priority so as to run the project as per technical programme..

	one of the clusters. The survey results showed that the animals are mainly managed in unorganized system, feeding purely based on browsing in jungle bushes, tree fodders and agriculture wastes, barely animals get concentrates. Chaugarkha goats are small size breed reared mainly for meat purpose and the average herd size is 8 to 12 goats (herd size is varying from 2-6 to 25-30 goats). The colours of the breed are black, fawn and white with stripe on face, which run downwards from base of horn to back of muzzle. Forehead is small to medium size, convex, tapering muzzle with alert eyes and Roman nose. Both male and female adult have straight horns (6-9 cm). The maturity age of female is 10-12 months and age at first kidding is 16-18 months. Majority of females deliver one kid per kidding twice a year, however, twinning also frequent in healthy goats. The adult body weight between 15-20 kgs. Four seventy six (476) faecal samples were collected for identification of parasitic infections. The qualitative, quantitative and culture analysis revealed that strongyles (Mainly *Haemonchuscontortus* and *Teladorsagiacircumcincta*), *Moniezia* and coccidia are common infection of these goats. The preventive health measures have been initiated to control parasitic infection.			

Name of the Centre - Jamunapari Farm Unit, CIRG, Makhdoom, Farah, Mathura **PI -** Dr. P. K. Rout, Principal Scientist (AG&B), **PC'S evaluation: Very good (A);** ~~Good (B); Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
i. The budget Utilization was extremely low. Efforts should be made to utilize budget provided to unit. ii. The Unit has to adopt two–three KVK's for validation of technologies and breed improvement in farmers flock. Necessary fund from allocated budget may be used for this purpose iii. Institute based units should expedite establishment of multiplier flocks in time frame manner.	Opening balance of the flock was 741 and closing balance was 747. Population growth of the flocks was 113.9% during the year. The overall mortality was 3.94 % and annual culling rate was 3.12 %. Mean of body weights of kids at birth, 3, 6, 9 and 12 months of age during the year were 3.28, 12.77, 18.12, 23.55 and 28.311 kg, respectively. The mean body weight under intensive management at 12 months of age was 45.705 kg and the highest value was 52.0kg. The average daily weight gain (ADG) of the kids under intensive management was 111.0, 115.3, 11.3, 119.9 and 111.5 g/day, respectively during 3-6, 3-9, 3-12, 6-9, and 6-12 month age group. The highest value of ADG was 152g/d during 6-9 months of age. Least	i. This project is contributing significantly in conservation and genetic improvement of goats in its habitat. ii. Eighteen to 20 generations of selection have bought positive genetic trend. And was able to precisely estimate genetic and phenotypic variances, co-variances and genetic parameters. iii. The unit is to increase the number of adult dose as per technical programme also strengthen its farmers based research activities.	i. Register farmers either through KVK's or directly for technology validation and improvement of goats in the farmers flock, ii. Distribute approximately 20-30 bucks to farmers flock for breeding purpose in adopted area under this project on the line of field unit. iii. Necessary health care to goats in adopted farmers will be provided under the project iv. Estimation of genetic progress and breeding value of animals. v. Documentation of the breed.	i. The unit has very good animals which have undergone about 15-17 generation of selection however there is a need to improve the performance of goats by providing adequate and qualified manpower, timely inputs such as feed, fodder and medicines. ii. The field work is also to be given serious thought as it suffers from lack of infrastructure and manpower being made available to the project.

During current year they should establish at least 10 such units in the breed habitat.	squares means of part lactation milk yield in 90 days and 140 days were 78.07±2.37 and 110.67±3.78 liters, respectively during the year 2014-15. Parity had significant effect on milk yield over the years. The doe, which had multiple births, produced more milk in comparison to doe having single kid. During this year, a total of 233does kidded 348 kids, out of which single, twin and triplet born kids were 119,226 and 3 respectively. The kidding rate was 1.49. Improved animals were supplied to various developmental agencies, farmers and state governments, Non-Government Organizations and progressive breeders for genetic improvement in the field conditions. During year, 224 improved animals were distributed to goat breeders for breed improvement of their flocks and 28 animals were transferred to other division for experimental use.			ii. The PI is overburdened with very many responsibilities and needs to be relived from a few of them for devoting time to this project.

Name of the Centre - Malabari Field Unit, KVA & S, Trissur Kerala **PI -** Dr. Thirupathy Venkatechalapathy, Assistant Professor. (AG&B) **PC'S evaluation: Very good (A);** ~~Good (B); Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
i. Efforts should be made to adopt farmers with larger flock size. ii. Impact evaluation of project should be done. iii. The AUC need to be resubmitted, immediately	Malabari goat field unit started in April, 2001 Project operates in six field centres viz. Thalassery, Badagara, Tanur, Perambra, Thalaiparamba and Kottakkal located in the North Kerala. Males selected from multiple births on the basis of body weight at 6/9 months of age and distributed to farmers. Breeding values were estimated by contemporary comparison for body weight. Health measures like periodical deworming, vaccination and supply of feed supplements were carried out. Total of 1336 animals from 335 farmers were registered and all adult females (1082) were provided with insurance coverage under the project. The participation of women was 66.50%. The overall population growth recorded was 87.47% with flock size of four to five. Majority of goat keepers (93.30%) in the project area had school education with land holding of below 25 cents. Average flock size	i. This unit operates in costal belt wherein most farmers maintain flock below 5 goats. It is therefore difficult to follow the animals because of heavy sale and purchase. ii. Genetically superior animals were distributed to the farmers for producing genetically superior goats. iii. This unit has been able to demonstrate positive impact on production of goats being reared by farmers. iv. It has been able to significantly reduce diseases through implementing health control	i. Register farmers either through KVK's or directly for technology validation and improvement of goats in the farmers flock, ii. Distribute approximately 20-30 bucks to farmers flock for breeding purpose in adopted area under this project on the line of field unit. iii. Necessary health care to goats in adopted farmers will be provided under the project iv. Estimation of genetic progress and breeding value of animals. v. Documentation of the breed and impact evaluation of the programme.	i. The unit has taken up a very good shape and going on as per approved technical programme. ii. The unit incharge needs appreciation for doing good work.

	was 3.70 adult female goats. The percentage of singles, twins, triplets and quadruplets were 44.31, 48.98, 6.41 and 0.30, respectively in the Malabari goat population. Mean average daily milk yield recorded was 0.86±0.04 litres. Body weight at one, three, six, nine and twelve months of age was 3.20±0.09, 8.65±0.20, 14.80±0.30, 19.45±0.54 and 21.80±0.90 kg, respectively. The mean of age at first kidding and inter kidding interval were 396.20±11.30 and 277.50±14.20 days, respectively. The production economics was calculated under field conditions and the main source of income was from sale of kids. During the year, 16 training sessions on goat rearing were conducted to 395 farmers. Intensive training on goat rearing with 2-4 days duration was imparted to 56 farmers. A Samagra goat village scheme has been launched in collaboration with self help groups to establish 20 elite Malabari breeding units in the home tract and five bucks were supplied in first phase. • Unit has adopted few large flocks • Impact Evaluation is being carried out	measures. The production and productivity of goats got significantly improved by implementing scientific goat husbandry practices. v. The project is running in right direction and overall progress is satisfactory.		

Name of the Centre - Marwari Field Unit, RAJUV & AS, Bikaner **PI -** Dr. G. C. Gahlot, Professor (AG&B) **PC'S evaluation:** ~~Very good (A); Good (B);~~ **Poor(C)**				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
i. Animal identification, pedigree recording should be carried out on priority. ii. Performance recording should be done on the basis of actual age and not on dentition pattern. iii. Validation of milk production and growth and reproduction records should be done. iv. The Unit should open clusters in three different districts.	One new help centre of Marwari goat was established in Depalsar village of the Churu District of the Rajasthan, which is approximately 189 km away from the Marwari Unit head quarter. With addition to this cluster, the Marwari Field unit is having five clusters viz Bikaner (Deshnokh, Kalyansar-Raisar and Daiya), Jodhpur (Kan Singh Ki Sidd) and Churu district (Depalsar) from distant corners of breeding tract to explore maximum genetic variation available in the breeding tract. All the registered goats of new cluster and existing clusters were identified by plastic ear tag. Twenty superior Marwari bucks were disseminated free of cost to adopted flock and 10 bucks on cost basis to the other agencies for breeding purpose. The 28 male kids were selected for first stage of selection and are reared till the age of final selection for future buck. The 1307adult does of all adopted clusters under the project were recorded for growth, milk yield,	i. This unit operates mostly in semi-arid desert areas ii. This breed is one of the most adapted genetic resources for desert and high temperature dry climates. iii. Marwari Goats do migrates from desert areas to areas where natural vegetation is available for body maintenance and production. iv. In the recent past, this unit has shown little impact on production of goats being reared by farmers. v. In past year the Unit has adopted two additional centers in distant district to provide wider coverage. vi. Now the project is	i. The Animal identification should continue in the field flocks. ii. Pedigree recording should be done to generate genetic parameters iii. Performance recording should be done on the basis of actual age and not on dentition pattern. iv. Register farmers either through KVK's or directly for technology validation and improvement of goats in the farmers flock, v. Distribute approximately 20-30 bucks to	Over the years the performance of this unit has been at "average" scale The university authorities have to review the management of the project by redeploying the manpower and infrastructure facilities. The Marwari breed is highly adopted in harsh desert climate therefore is a valuable genetic resource of the nation. For poor implementation of the project such an excellent genetic resource cannot be

	reproduction and health parameter.The body weight at birth and 12 months of age was improved by 13.86 % and over the baseline performance (2.257 kg). The overall least square mean for body weights at birth, 3 month, 6 month, 9 month and 12 months of age were 2.57, 8.47, 14.01, 19.05 and 26.18 Kg, respectively. The birth weight was significantly influenced by cluster, sex of calf, single/twin kid and kidding month. This improvement is due to distribution of selected elite sires in farmers' flocks and effective health coverage. The test day milk yields of about 200 does were recorded fortnightly during the lactation. No special care to the dam or neonatal kid in the form of concentrate feeding is practiced. A total of 24133 animals of the flock were provided health coverage by way of vaccination against PPR, ET, dipping and de-worming besides strategic supplementary feeding in the form of mineral mixture. Reduction of the mortality rates in the farmers flock. Goat farmers were sensitized to form goat breeder/cooperative societies.	heading in right direction and overall progress need improvement but is satisfactory.	farmers flock for breeding purpose in adopted area under this project on the line of field unit. vi. Necessary health care to goats in adopted farmers will be provided under the project vii. Estimation of genetic progress and breeding value of animals. iii. Documentation of the breed and impact evaluation of the programme.	ignored. Therefore, if this Unit doesn't improve its performance, posiibilities will be explored to allocate this unit to any of ICAR institute located in the evolution area of this breed.

Name of the Centre - Osmanbadi Unit, NARI, Phaltan (MH) **PI -** Dr. Chanda Nimbkar, Director, **PC'S evaluation:** Very good (A); ~~Good (B); Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints/shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
i. The Unit should have at least three clusters in the home tract of the breed. ii. Superior animals should be purchased from the farmers and reared for buck production. iii. AI should be validated under field condition	The Osmanabadi Field unit works in four village clusters - Wadgaon in Satara district, Kamone in Solapur district and Sakat and Borla in Ahmednagar district. Total 605 adult does and their 1176 kids were recorded during 2014-15. The average number of goats per household was thus 3.22. About 90% of the does older than one year, kidded during the year. 15-20% of those kidded twice in the year. The average litter size from 698 kiddings during the year in the four villages was 1.69. The mortality among kids younger than 3 months was 6%. Overall mortality was 3.9%. 35% male and 22% female kids of the age of 3-6 months were sold in total from all villages. Out of the remaining kids, 65% males and 44% females were sold at the age of 6-12 months. This means that about 40% of the female kids were retained for breeding. Only about a third of	i. This unit has adopted 4 clusters rich in Osmanbadi goats genetic resources and producing genetically superior goats for breed improvement. ii. This unit has been able to demonstrate positive impact on production of goats being reared by farmers. iii. It has been able to significantly reduce morbidity and mortality through implementing health control measures. The production and productivity of goats got significantly improved by implementing scientific goat husbandry practices. iv. The project is running in right direction and	i. Register farmers either through KVK's or directly for technology validation and improvement of goats in the farmers flock, ii. Distribute approximately 20-30 bucks to farmers flock for breeding purpose in adopted area under this project on the line of field unit. iii. Necessary health care to goats in adopted farmers will be provided under the project iv. Estimation of genetic progress and breeding value of animals. v. Documentatio	This project is being implemented by an NGO therefore, not much administrative hurdles come in the way in implementing the project. The project is going on as per technical programme and schedule.

	these are needed as replacements. The 100-day milk yield of does (1077 records) that had given birth to single, twin and triplet kids was 64.0±1.9 kg, 97.8±1.6 kg and 131.4±3.3 kg. Goats from Kamone in Karmala taluka had 34% higher least-squares mean 100-day milk yield than those in Phaltan taluka. The overall least squares mean weight (total number of records 2068) was 2.4±0.06 kg at birth, 10.5±0.2 kg at 3 months, 15.7±0.6 kg at 6 months, and 22.7±1.9 kg at 9 months. We have so far frozen 8419 semen doses of 30 Osmanabadi bucks in straws in the 'State of the Art Buck Semen Freezing and AI Centre set up with a grant from the Government of India. 4000 straws out of these were supplied to the Government of Maharashtra for their A.I. centres in five districts; 2124 straws were supplied to 22 Field AI technicians in Maharashtra (Aurangabad, Ahmednagar, Hingoli, Kolhapur, Nashik, Pune, Sangli, Satara and Solapur districts) and one distributor in Karnataka and there are 1291 straws in storage. We have thus given breeding support to non-adopted areas in the fulfilment of one of the important objectives of the AICRP on Goat Improvement. Two	overall progress is satisfactory.	n of the breed and impact evaluation of the programme.	

	visits of 19 Pashumitra group members from Sakat and Borla were organized to NARI's livestock and fodder farms on 30 May and 16 September, 2014 respectively. We have finished refining and fine-tuning our MS Access database of the Osmanabadi field unit and putting it on the SQL platform for ease of data entry and data retrieval. Some enterprising goat keepers like Dattatray Jagtap of Wadgaon have benefited immensely from the Osmanabadi Field Unit. Dattatray had 3 goats when he joined the project in 2009 and now has 21 goats and earns almost Rs.300 per day from goat rearing (with help from his wife and father), in addition to income from cultivating his land.			

Name of the Centre - Sangamneri Field Unit, MPKV, Rahuri **PI -** Dr. Sanjay Mandakmale, Associate Professor (LPM), **PC'S evaluation: Very good (A);** ~~Good (B); Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints/shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
i. Unit should produce bucks for breed improvement in home tract. ii. Impact analysis should be carried out.	The programme was initiated by registering 500 does. However, during year, 2014-15, 1348 breedable does were registered under 4 clusters i.e. Sangamner, Shrirampur, Rahuri and Belha located under 3 districts Ahmednagar, Nashik and Pune. Total 48 breeding bucks were rotated in the selected villages. 1909 progenies were generated in the field during the year. The age at first conception and age at 1st kidding showed considerable improvement as the age at first conception and first kidding reduced i.e. 309.68±11.76, 407.65±12.09 days respectively. The kidding interval is also reduced from 266.36±9.45 days to 238.73±9.28 days. The numbers of kids per kidding were 1.83 most of the reproductive traits were significantly influence by various non-genetic factors. The 90 days milk yield is increased by 6.09 lit. over the last year (92.69±1.90 to 97.56±1.83 lit). The Improvement in body weight at 1, 3, 6, 9 &12	i. This unit has adopted 4 clusters rich in Sangamneri goats genetic resources and producing genetically superior goats for breed improvement. ii. This project has contributed in conserving this breed by producing higher numbers of goats true to the breed. iii. This unit has been able to demonstrate positive impact on production of goats being reared by farmers. iv. It has been able to significantly reduce morbidity and mortality through implementing health control measures. The production and productivity of goats got significantly improved by implementing	i. Selection and purchase of male kids from farmers' flock. ii. Distribution of 20-30 bucks, breeding of flocks and recording of pedigree and performance data. iii. Collection of data on socio-economics and managemental practices. iv. Selection of male and females. v. Collection of semen from improved bucks and storage in semen bank. vi. Collection information	This unit has been able to conserve the breed which otherwise was in threatened list. The impact of this project is clearly visible on population growth, performance of the animals and economy of the farmers. This unit also needs appreciation for good work done.

	months data was 1.84, 6.74, 10.43, 10.07 and 14.16 per cent respectively over the baseline performance. Similarly the milk yield also improved by 55.52 per cent over baseline data. ii The population of the Sangamneri goats increased by 52.90 percent over the last year in the registered cluster. However the population in the breeding tract increased by 399.52 percent i.e.3759 during 2006-07 to 15018 during 2014-15. During this year four KVKS (Babhaleswar , Naryangaon, Malegaon and Nashik) in the breeding tracts have been adopted and 15 bucks were supplied to them. Five thousand frozen Semen doses of elite bucks have been prepared. The unit had been included women's self help groups through which Mrs. Surekha Subhash Shinde, at Gogalgaon Dist-Ahmednagar made victory by selling the 7 male kids of 4 months age at Rs.35000/-. Mrs. Latabai Haribhau Kadu, At/P- Gogalgaon Dist-Ahmednagar aban-doned woman is self sustaining by Sangamneri goat keeping.. • Unit has been able to produce sufficient animals true to the breed for conservation and improvement. • The impact analysis has been done .	scientific goat husbandry practices. v. The project is running in right direction and overall progress is satisfactory. vi. There has been positive impact on economy of the farmers.	on marketing vii. Establishment of co-operative/ self-help groups. iii. Establishment of elite /multiplier breeding flocks.	

Name of the Centre - Sirohi Farm Unit , CSWRI, Avikanagar **PI -** Dr. S.S. Misra, Senior Scientist (AG&B) **PC'S evaluation:** Very good (A); ~~Good (B); Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints/shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
i. The unit needs to improve the performance of animals. ii. It should actively collaborate with Sirohi field unit at Vallabhnagar. iii. The Unit has to immediately adopt farmers and two–three KVK's for validation of technologies and breed improvement in farmers flock. Necessary funds from allocated budget may be used for this purpose iii. Institute based units should expedite establishment of multiplier flocks in time frame manner. During current	The opening balance on 01.04.2014 was 211 males and 446 females totaling 657 animals. The additions during the year were due to birth of 144 male and 142 female kids. The reductions were due to death of 5 males and 10 females, culling of 12 males and 27 females, sale of 128 males and 89 females. The closing balance as on 31.03.2015 was 201 males and 462 females totaling 663. The overall least squares means (2010-11 to 2014-15 born animals) for live weights at birth, 3, 6, 9 and 12 months of age were 3.04, 11.93, 18.39, 24.46 and 29.26 kg, respectively. The growth rate in terms of per day average gain was 98.70 and 63.91 g from 0 to 3 months and 3 to 12 months of age, respectively. The overall least squares means (2009-10 to 2013-14 kidding) for milk yield at 90 days, 150 days, total lactation milk yield and lactation length were 74.64, 101.86 and 109.50 kg, and 182.87 days, respectively. During the year, out of 319 does	i. This project is one of the oldest components of AICRP on Goat Improvement. ii. The health and production of goats need attention as there has been ups and downs in the performance. iii. The shed structure of this farm needs immediate restructuring and improvement. iv. It is contributing to genetic improvement of goats in its habitat. v. Precise estimates of genetic and phenotypic variances, co-variances and genetic parameters were observed.	i. To work in collaboration with Sirohi field unit, Vallabhnagar ii. To adopt farmers either through KVK's or directly for technology validation. iii. Distribute approximately 20-30 bucks to farmers flock for breeding purpose in adopted area under this project on the line of field unit. iv. Necessary health care to goats in adopted farmers will be provided under the project. v. Performance recording of filed flock has to be carried out	As this unit is institute based, recommendations were made to adopt farmers for validation of technologies and active collaboration with Sirohi field unit Vallabhnagar. The unit needs improvement on both aspects. There were issues on goat housing and health resulting into decreased performance. It appears that there is an improvement on all these aspects in the current year.

year they should establish at least 10 such units in the breed habitat.	available for breeding, 317 were tupped and 262 kidded with 21 giving birth to twins. The tupping percentage was 99.37. The breeding efficiency was 86.13 % on the basis of does available and 86.69 %, on the basis of does tupped. The kidding percentage was 91.29 and 91.88 on the basis of does available and does tupped, respectively. The litter size was 1:1.08. The overall mortality rate was 1.59 percent. A total of 217 animals comprising of 128 males and 89 females were sold to the progressive farmers, Government and Non-government agencies for improvement of their goats for meat and milk production. The total receipts from sale/transfer of live animals, sale of milk, culling etc. during the year was Rs 15,35,601.00			

Name of the centre – Sirohi Field Unit, Veterinary Collage, Vallabhnagar **PI -** Dr. R. K. Nagda, Dean and Professor (LPM**),** **PC'S evaluation:** Very good (A); ~~Good (B); Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints/short falls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
i. Salary head needs to be adjusted. Expenditure should not exceed the budget allotted to this Unit. ii. Animal Identification, pedigree and performance recording should be continued. iii. The unit should produce and supply more number of elite bucks to farmers and other agencies. iv. This unit should actively collaborate with Sirohi Farm Unit at CSWRI, Avikanagar.	On-going AICRP on goat improvement (Sirohi field unit) came in to financial existence on 1st January 2001, with the main objective to bring about the improvement in the farmers flock. As per technical programme base line information on production and reproduction traits, managemental practices, production trend and disease pattern were recorded and analyzed. The registration of farmer's flock and the identification of animals were carried out in four clusters. The data on growth, lactation and reproductive performance of Sirohi goats under field conditions have been analyzed using least square techniques since 2009. The closing balance of the registered flock was 1652 animals including 1125 females. During report period, 488 kids were born out of which 256 were males. During report period population growth was 84.63% recorded. The	i. This unit has adopted 4 clusters rich in Sangamneri goats genetic resources and producing genetically superior goats for breed improvement. ii. This unit has been able to demonstrate positive impact on production of goats being reared by farmers. iii. It has been able to significantly reduce morbidity and mortality through implementing health control measures. The production and productivity of goats got significantly improved by implementing scientific goat husbandry practices. iv. The project is running in right direction and overall progress is satisfactory. v. There has been positive impact on economy of the farmers.	i. To work in collaboration with Sirohi farm unit, CSWRI, Avikanagar. ii. The demands of the breeding bucks are very high for this breed. The Unit has to strengthen capabilities to identify, select and make farmers rear superior goats for future breeding purpose apart from implementing the technical programme. iii. Mapping of breeding tract and dividing the breeding tract into 4 clusters iv. Selection and purchase of male kids from farmers' flock. v. Distribution of 20-30 bucks, breeding of flocks and recording of pedigree and performance data. vi. Collection of data on socio-	This unit has been able to create a very good Sirohi flocks in farmer's flock by introducing genetically superior bucks and health control measures. The impact is visible in farmer's flocks. The performance is satisfactory.

	least square means for body weight at birth, 3, 6, 9 and 12 months of ages were 2.24±0.03, 13.69±0.20, 18.07±0.33, 21.69±0.61 and 26.68±0.64 kg, respectively. The body weights increased over the years. Heritability of birth weight was found to be moderate. Year, season of birth, sex of kid and type of birth have significantly affected on the body weights. Kids born between months July-October had higher weights at birth and 9 months body weight whereas kid born between March to June had higher body weight at 3,6 and 12 months of age. Single born kids were significantly heavier than the multiple born kids at all the ages. Genetic parameters for growth, lactation and reproductive traits were estimated. Total 28 breeding bucks were distributed to registered farmers during the report period for further genetic improvement in the field. Additional three TSP centres are added and 18 bucks were distributed in TSP centre. Kidding rate of 1.25 was observed during the period. The absolute selection differential of 4.89 kg for 3 months body weight and 9.75 lit for 90 days milk yield were observed for future set of bucks.		economics and managemental practices. vii. Collection of semen from improved bucks and storage in semen bank. iii. Collection information on marketing. ix. Establishment of co-operative/ self-help groups. x. Establishment of elite /multiplier breeding flocks.	

	Major diseases observed in the registered animals were enteritis and pneumonia. • The unit is producing sufficient male kids to be sold as future bucks. • Sirohi farm unit Avikanagar and field unit Vallabhnagar should device modalities for exchange of animals etc. on the basis of genetic superiorities.			

Name of the Centre - Surti Field Unit, N.A.U, Navsari (Gujarat) **PI -** Dr. K.K. Tyagi, Associate Professor (AG&B), **PC'S evaluation: Very good (A)**; ~~Good (B); Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/constraints /shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
i. The animal identification need to be implemented immediately. ii. Efforts should be made to strengthen goat breed society in the area. iii. The unit should work on popularization of goat manure based Wormi-compost	During this year the unit had organized 14th Annual review Meet of AICRP on Goat improvement between 29-30 September 2014. A Consortium meet of **"GOAT MILK PROCESSING ON COOPERATIVE BASE IN GUJARAT"** and by AICRP on Goat Improvement- Surti Field Unit, BVG India Ltd, Boga Group & South Gujarat Goat Farmers Cooperative Union (SGGFCU) was also held. With continuous bilateral efforts from farmers and Surti field unit tribal farmers have started 14 notified village levels goat cooperatives out of which 3 had already been provided with accreditation of registered cooperatives by District Registrar. Eighteen (18) on campus, 21 FLD's (field visits and demonstrations), were organized by the unit. As an achievement a total of 8 Surti bucks had been supplied.. Additionally 20 bucks are ready for dissemination this year. In field a total of 08 new goats were registered and a closing balance of 535 white Surti goats was observed.. As an achievement continuously increasing trend in registered Surti goat population have been achieved under the project area during last six years. There was 16.71% increase in birth weight and 14.13% increase in total milk yield had been observed from 2009 to 2014 in adopted	i. This unit has adopted 4 clusters rich in Sangamneri goats genetic resources and producing genetically superior goats for breed improvement. ii. This project has contributed in conserving this breed by producing higher numbers of goats true to the breed. iii. This unit has been able to demonstrate positive impact on production of goats being reared by farmers. iv. It has been able to significantly reduce morbidity and mortality through implementing health control measures. The production and productivity of goats got significantly	i. Apart from implementing the technical programme, Unit has to support one of the first Goat Cooperative established with motivation and technical backup of this Unit ii. Mapping of breeding tract and dividing the breeding tract into 4 clusters iii. Selection and purchase of male kids from farmers' flock. iv. Distribution of 20-30 bucks, breeding of flocks and recording of pedigree and performance data. v. Collection of data on socio-economics and managementa l practices.	This unit has come up strongly from being one of the poorest unit to become one of the best performing unit in the recent past. As Surti is a threatened goat bread this unit has been able to significantly improve population and performance of Surti in the farmer's flock. This unit has also been able to establish goat cooperatives and awareness in the farmers about goat husbandry. For doing commendable work this unit also needs appreciation.

	villages. During the current year the least square means for body weight at birth, 3, 6, 9 and 12 months of ages was 2.0±0.24 (518), 8.08±0.10 (335), 13.70±0.20 (247), 19.67±0.23 (208) and 23.19±0.32 (92) kg, respectively. Season of birth, sex of kid, breed, type of birth and clusters had significantly affected the body weights. Kids born between November and February months (winter) had higher birth weights at birth, 3, 6 and 9 months. Kids born during summer had shown highest body weight at 12 month of age. Single born kids were significantly heavier than the multiple born kids during first nine months, whereas differences get subsides as they approach 12 months of age. Kidding rate had been increased to 1.47 from 1.41 since 2009 justifying higher prolificacy in Surti Goats. Overall mortality in Surti flocks was 5.55%. Two research papers & seven abstracts had been published and four research papers had been communicated for publication from the research work done on Surti goats under the scheme. Ten (09) Post Graduate and five (5) Departmental collaborative research works had also been undertaken in the scheme. Surti goat population need to be conserved and improved in time and it can pave the possibility of improving other non-descript breeds of the area through proper breeding plan. • The animal identification has been implemented. • Several farmers cooperatives/self-helped group have been formed. • The work on wormy-composed is in progress.	improved by implementing scientific goat husbandry practices. v. The project is running in right direction and overall progress is satisfactory. vi. There has been positive impact on economy of the farmers. vii. This one of the first functional farmers' cooperative was constituted by the help of this unit which needs to be highly appreciated.	vi. Selection of male and females. vii. Collection of semen from improved bucks and storage in semen bank. iii. Collection information on marketing. ix. Establishment of co-operative/ self-help groups. x. Establishment of elite /multiplier breeding flocks.	

Name of the Centre - Uttrakhand Goat Unit, GBPUA&T, Pantnagar **PI -** Dr. Brajesh Singh, Professor (AB&B), **PC'S evaluation:** ~~Very good (A);~~ **Good (B);** ~~Poor(C)~~				
Activity assigned and targets fixed for each activity during the period	**Activity carried out during the period**	**Gaps/ constraints/ shortfalls / excess and reason thereof, if any**	**Future programme identifying the activities, time line and targets for each of the activity**	**Remarks**
To establish infrastructure, survey village and farmers and register selected farmers for initiation of the project and implementation of the technical programmes.	Uttarakhand Goat Unit is a new unit. This unit registered a new breed named 'Pantja'. After survey ofv39 villages., it was found that Pantja goats are mainly distributed in the areas, namely Bara, Kunda, Tilpuri and Bhimtal. Therefore, these areas were. Pantja are medium sized goats reared mainly for meat purpose with average flock size of 7±2. However, the flock sizes as big as 35 to 62 have also been observed. The composition of the flock for does, bucks and kids being 48, 1 and 51 per cent, respectively. The colour of the goats is brown/ fawn, getting lighter ventrally with stripe on face. Pantja have small sized horns (about 10 cm), which are triangular, twisted, pointed at tip and oriented slightly upwards and backwards. Their birth weight and yearling weight in male and female is 1.9±0.2, 1.7±0.2 and 21.1± 2.1, 17.5±1.7 kg, respectively. The age at sexual maturity of female ranged between 9 – 11 months and age at first kidding	i. This unit has been able to successfully establish the centre and producing valuable baseline information on local goats and goat farmers. ii. The unit has been able to register a new breed called "Pantja". iii. The unit was not able to utilize the fund allocated to it giving a negative impact. iv. The project is running in right direction and overall progress is satisfactory	i. To create a document on economic status of Goat farmers and feasibility to improvement goat productivity. ii. To register farmers, record the performance of goats, provide health care and superior bucks for improvement. iii. Preliminary Selection of 30--50 bucks based on type of birth and weaning rate.	This unit was established in the current year. The project has been able to create infrastructure and register farmers, goats in different clusters. Overall the unit has taken step forward in establishing the infrastructure.

	between 14-15 months. Majority of females deliver two kids (67%) per kidding, however, tripleting is also frequent in healthy goats. Being poor, the goat keepers maintain goats un-hygienically. Thus, a lot of these goats suffer from parasitism (external and internal), coccidiosis and PPR. Attempts have been initiated in preventive health care by supplying them with lime for its spray on the floor of the goat house, and mineral mixture, deworming and vaccine. Department is maintaining an elite flock of Pantja and a total of 9 bucks from this flock have been supplied to the farmers in the field for genetic improvement of the goats. Besides, 9 castrations have been performed in the field. A facility of natural service to the local goats has been created under the project.			

(B) Financial/administrative Proforma AICRP on Goat Improvement 2014-15

Name of centre	**Year of Initiation**	**No. of sanctioned post and designation** *(Annexure –I)*	**No. of post filled** *(Annexure –I)*	**No of post vacant (vacant since when)** *(Annexure –I)*	**Funds released during the year (Rs. Lakhs) (ICAR share)**	**Previous balance (Rs. Lakhs)**	**Funds utilized (Rs. in Lakhs) (ICAR share)**	**Closing balance (Rs. in Lakhs)**	**Remarks by PC**
PC Unit, CIRG	1972	13	6	-	8.97	0	---	--	Two SRFs were appointed in the project. One position of RA is still vacant. The AUC has not been provided by Finance Wing of CIRG.
Andaman Goat Hill		-	*	-	11.73	0	11.19	0.54	The unit has deployed sufficient scientific and supporting staff and has been able to utilize funds properly. Overall fund position is satisfactory.
Assam Hill Goat Unit (NEH)*	2009	-	*	-	19.2	-0.17	19.21	-0.19	--as above--
Barbari Farm Unit	1993	6	3	3	9.9	0	8.52	1.38	This unit was allocated 13.50 in BE when it was not able to spend. The funds were further reduced to 9.90 even than 1.38 remains unspent. The AUC is not in proper format. The Unit need to exert more to utilise allocated fund in time.
Bengal Goats , Ranchi (TSP)*	2009	-	*	-	19.7	5.43	19.04	6.09	This unit was allocated Rs. 19.70 in RE out of which 19.04 were spent. However. the unit has been asked to return back Rs. 2.97 lacs to CIRG.
Black Bengal Unit, Kolkata	2001	6	3	3	18.7	13.94	20.34	8.94	This unit was allocated 27.45 in BE which was revised to Rs. 18.70 lacs on the basis of non utilization of fund and also reduction of fund in RE.. An amount of Rs.3.36 returned back to CIRG. The unit has been asked to return back Rs. 7.83 lacs to CIRG. The Unit is under scrutiny.
Changthangi Goat Unit Leh,	2014	-	*	-	12.8	0	11.11	1.69	Financial position is fine however the university headquarter is located at Srinagar, has to be vigilant in disbursing the fund of the project at its headquarter at Leh.

									A need was felt to develop synergy between University Finance wing, Directorate of Research and Incharge of the Project.
Gaddi Field Unit *(TSP)	2009	-	*	-	14.2	-1.42	13.03	-0.25	Financial position of this unit is satisfactory and staff position is fine.
Ganjam Field Unit, OUAT, Bhubanaeshwar	2001	5	6	1	22.10	-0.48	11.44	10.18	The unit was allocated 27.55 in BE which was revised to 22.10 even than Rs. 10.18 lacs remain unspent. Therefore unit has been asked to return back Rs.6.00 lacs back to CIRG for final adjustment. The Unit and University seems be least concern about management of this project. The Honourable VC of the University was informed about it. The Unit is under scrutiny.
Himalayan Local Goat Unit Mukteshwar.	2014	-	*	-	6.65	0	4.85	1.79	This unit was allocated Rs. 15.5 lacs in BE. It was revised to Rs. 6.5 Lacs as they were not able to spend disbursed fund therefore, Rs.3.35 was taken back. Even than the unit has not being able to spent 1.79 lacs. This Unit need to be energized by the Institute Directorate. Fund and staff position is not satisfactory.
Jamunapari Farm Unit	1993	7	6	1	10.4	0	10.18	0.22	This unit was allocated Rs. 16.00 lacs in BE. It was revised to Rs. 10.40 Lacs as they were not able to spend disbursed fund. The Staff position need attention as supporting staff were not available for management of goats.
Malabari Field Unit, Kerala	2001	5	6	Nil	21.77	-3.56	25.08	-6.87	Although AUC of the year 2014-15 is in format but this unit was asked to revise AUC for the period of 2013-14 as the same was not in proper format. Therefore, overall comparison cannot be made as progressive total mismatch. The Unit need to submit revised AUC for the year 2013-14.
Marwari Field Unit, RAJUVAS,Bikaner	1988	8	3		22.06	11.05	15.21	12.9	The unit was allocated Rs. 19.90 lacs. The unit has unspent balance of Rs. 11.05 lacs as well. The expenditure was par below the allocation. The unit has asked to return back Rs. 8.73 lacs to CIRG. This unit is under scrutiny.
Osmanabadi Unit*	2009	-	*	-	18.65	0	18.65	0	Financial and staff position is as per norms.
Sangamneri Field Unit	2001	7	7	Nil	43.72	-7.97	39.9	-4.15	This unit was allocated Rs. 27.00 lacs in BE. It was revised to Rs. 43.65 Lacs as they were to pay salary to the staff which is extremely high. Even after such a high allocation the university has a negative balance of Rs. 4.15 lacs. The

									university authorities were requested to curtail expenditure on salary by re-deployment of the staff.
Sirohi Farm Unit, Avikanagar	1993	5	5	8	16.5	1.38	16.32	1.56	Financial position is up to the mark except it has not able to utilize Rs. 1.56 lacs in spite of fact that high demand of funds were made by Institute to ICAR authorities.
Sirohi Field Unit, RAJUVAS, Vallabhnagar	2000				25.10	-10.82	13	1.28	The unit has had a negative balance of Rs. 10.82 lacs which was adjusted from this year (2014-15). **AUC needs to be revised as there is mismatch in amount remitted to the unit and receipt in the AUC.**
Surti Field Unit (TSP), NAU, Navsari	2000	5	2	5	23.68	1.13	18.84	5.97	The unit was allocated Rs. 23.68 lacs out of this Rs. 18.84 lacs was spent taking into account previous year balance a sum of Rs. 5.97 lacs is closing balance out of which the unit has asked to return Rs. 1.79 back to CIRG. **AUC needs to be revised as there is mismatch in amount remitted to the unit and receipt in the AUC**
Uttarakhand Local Goats	2014	-	*	-	15	0	8.09	6.9	This unit has positive balance of Rs. 6.90 the university has been requested to return Rs. 3.86 back to CIRG.

Note: *Work is being carried out through contract or through Research Associates, Senior Research Fellows etc.

** The information is enclosed in Annexure 1.

Annexure 1

1**. Project Co-ordinating unit, CIRG Makhdoom, Mathura**

Particulars	Detail	No. of posts filled	No. of posts vacant (vacant since when
No. of sanctioned posts and designation	Project coordinator – 1 Senior Scientist – 1 Scientist – 1 Sr. programmer – 1 Sr. computer – 1 Jeep driver - 1 Assistant administrative officer – 1 Assistant account officer – 1 Office superintendent – 1 Jr. stenographer - 1 Junior Clerk – 1 Livestock Attendant – 1 Messenger - 1	Dr. S.K.Singh,PS(AG&B) has been designated as Incharge AICRP by ICAR as his additional duty. Dr.M.S Dige, Scientist is also associated as a part timer with PC Unit. Assistant Administrative Officer Technician T-II Livestock Attendants -1 SRF(Management)-1 SRF(ComputerApplication)-1	The project coordinator's post has been withdrawn and director of the institute also worked as a project coordinator. Other posts are vacant
Comments	A post of RS could not be filled in spite of requisition sent to this effect. The PC unit and two associate Unit need higher cooperation in utilising fund, posting staff, purchasing goods etc.		

2. Barbari Unit, CIRG Makhdoom, Mathura

Particulars	Detail	No. of posts filled	No. of posts vacant (vacant since when)
No. of sanctioned posts and designation	Senior Scientist – 1 Assistant Farm Manager – 1 Livestock Assistant - 2 Lab. Attendant – 1 Junior Clerk – 1 Livestock Attendant - 17	Senior Scientist – 1 Livestock Assistant – 1 Young Professional - 1 Livestock Attendants – 13	Assistant Farm Manager – 1 Livestock Assistant – 1 Lab. Attendant - 01 Junior Clerk – 1 Livestock Attendants – 3
Comments	Dr. M.K. Singh, I/C of The Unit is overburdened by the Institute as he was given several additional charges, therefore he is not able to give enough time to Unit. The staff also could not be provided as per need of the Unit.		

3. Black Bengal Unit, Kolkata

Particulars	Detail	No. of posts filled	No. of posts vacant (vacant since when)
No. of sanctioned posts and designation	Senior Scientist – 1 Veterinary Officer— 1 Tech. Asstt. – 2 , RA – 1 SRF – 1, Clerk – 1	Three faculty staff is associated with the unit Tech. Asstt. – 3 , Clerk – 1 RA – 1 SRF – 1	Veterinary Officer-1
Comments	Dr, P.K. Senapati has been given charge of Dean College of Veterinary Sciences. The salary fund provided to them could not be utilised by the Unit. This unit need to reallocate staff and do more to fulfil its obligations.		

4. Ganjam Unit, OUAT, Bhubaneswar

Particulars	Detail	No. of posts filled	No. of posts vacant (vacant since when)
No. of sanctioned posts and designation	Senior Scientist – 1 Vety Officer-1 Tech Asstt. – 1 Livestock Asstt.- 3 Clerk-1	Senior Scientist – 1 Tech Asstt. – 1 Clerk-1 SRF-2 Data Enumarators-5	Vety. Officer-1 Livestock Asstt.- 3
Comments	The University authorities are not showing concern on proper implementation of this Project. Funds are not utilised in time frame manner, unutilised funds are not returned back in time to CIRG. The Unity is under scrutiny.		

5. Jamunapari Unit, CIRG, Makhdoom

Particulars	Detail	No. of posts filled	No. of posts vacant (vacant since when)
No. of sanctioned posts and designation	Senior Scientist – 1 Scientist – 1 Assistant Farm Manager –1 Livestock Assistant – 2 Lab. Attendant – 1 Clerk – 1 Livestock Attendant – 19	Scientist – 1 Technical Staff – 3 Lab Attendant – 1 Livestock Attendant – 14	Assistant Farm Manager –1 Livestock Attendants – 3
Comments	Staff position is OK. The Technical staff are not qualified in livestock management. Lack of Supporting staff.		

6. **Malabari Unit, Thrissur, Kerala**

Particulars	Detail	No. of posts filled	No. of posts vacant (vacant since when)
No. of sanctioned posts and designation	Senior Scientist/Associate Professor- 1 Asst. Professor/(Veterinary Officer)- 1 Technical Officer - 1 Livestock Assistants- 3 Jr. clerk - 1	Senior Scientist/ Associate Professor- 1 Asst. Professor/ (Veterinary Officer)- 1 Asst. Grade II- 1 Senior Research Fellow- 1 Livestock Assistants- 3	Technical Officer Gr.II- 1 (since July 2012)
Comments	The staff position of this Unit if as per norms.		

7. Marwari Unit, RAJUVAS, Bikaner

Particulars	Detail	No. of posts filled	No. of posts vacant (vacant since when)
No. of sanctioned posts and designation	Sr. Scientist-1 Veterinary Officer-1 Fam manager- 1 Jr. technical officer-1 Livestock Assistant -3 Livestock Attendant .- 5	Sr. Scientist-1 Veterinary Officer-1 SRF-2 Livestock Assistant -5(contract basis)	Fam manager- 1 Jr. technical officer-1
Comments	The University authorities need to examine staff posted and reshuffle them on the basis of their performance. The performance is not at par with other units therefore, immediate action is required to depute staff who can undertake project work. properly		

8. Sangamneri Unit, MPKV, Rahuri ,Maharastra

Particulars	Detail	No. of posts filled	No. of posts vacant (vacant since when)
No. of sanctioned posts and designation	Senior Scientist- 1 Veterinary Officer-1 Technical Assistant -1 Livestock Assistant -3 Jr. Clerk-1	Senior Scientist- 1 Veterinary Officer-1 Technical Assistant -1 Livestock Assistant -3 Jr. Clerk-1	Nil
Comments	The salary component of staff is extremely high. The University was requested to reshuffle staff to reduce financial burden.		

9. Sirohi Unit, CSWRI, Avikanagar, Rajasthan

Particulars	Detail	No. of posts filled	No. of posts vacant (vacant since when)
No. of sanctioned posts and designation	Senior Scientist – 1 Scientist - Four Assistant Farm Manager –1 Farm manager-1 Livestock Assistant - 2 Office suptd. - 1 Junior Clerk – 1 Livestock Attendant - 15	Senior Scientist – 4 Assistant Farm Manager –1 Farm manager-1 Other work is done on contract basis	Livestock Assistant - 2 Office suptd. - 1 Junior Clerk – 1 Livestock Attendant - 15
Comments	The Unit was taking its staff from non-plan budget of CSWRI and erstwhile WRRC of CIRG. The Institute, it appears has withdrawn the staff and undertaking work on contract basis, therefore demanding extra money from contingency grant..		

10. Sirohi Unit, RAJUVAS, Vallabhnagar (Raj.)

Particulars	Detail	No. of posts filled	No. of posts vacant (vacant since when)
No. of sanctioned posts and designation	Senior Scientist- 1 Veterinary Officer-1 Technical Assistant -1 Livestock Assistant -3 Jr. Clerk-1	Senior Scientist- 1 Veterinary Officer-1 Technical Assistant -1 Livestock Assistant -3 Jr. Clerk-1	--
Comments	Staff position if fine.		

11. Surti Unit, NAU ,Gujarat

Particulars	Detail	No. of posts filled	
No. of sanctioned posts and designation	Senior Scientist- 1 Veterinary Officer-1 Technical Assistant -1 Livestock Assistant -3 Jr. Clerk-1	Senior Scientist- 1 Jr. Clerk-1 Work is being carried out through contractual staff.	Veterinary Officer-1 Technical Assistant -1 Livestock Assistant -3
Comments	The Unit is now undertaking work from RA/SRF and enumerators provided in current plan. They need to appoint /Engage on Contract basis a VO.		

Name of centre	Previous year Balance as on 1st April 2014	Amount Paid 14-15	Amount Adjusted	Return Amount to CIRG	Total Amount Paid	Expenditure	Next Year Bal.
PC Unit, CIRG	4.63	8.97			8.97	8.97	0
Andaman Goat Hill	0	11.73	0	0	11.73	11.19	0.54
Assam Hill Goat Unit (NEH)	-0.17	19.2	0	0	19.03	19.21	-0.19
Barbari Farm Unit	0	9.9	0	0	9.9	8.52	1.38
Bengal Goats , Ranchi (TSP)	5.43	19.7	0	0	25.13	19.04	6.09
Black Bengal Unit, Kolkata	13.94	18.7	0	-3.36	29.28	20.34	8.94
Changthangi Goat Unit Leh,	0	12.8	0	0	12.8	11.11	1.69
Gaddi Field Unit (TSP)	-1.42	14.2	0	0	12.78	13.03	-0.25
Ganjam Field Unit, OUAT, Bhubanaeshwar	-0.48	22.1	0	0	21.62	11.44	10.18
Himalayan Local Goat Unit Mukteswar.	0	10	0	-3.35	6.65	4.85	1.79
Jamunapari Farm Unit	0	10.4	0	0	10.4	10.18	0.22
Malabari Field Unit, Kerala	-3.56	21.77	0	0	18.21	25.08	-6.87
Marwari Field Unit,RAJUVAS,Bikaner	11.05	22.06	0	-5	28.11	15.21	12.9
Osmanabadi Unit	0	18.65	0	0	18.65	18.65	0
Sangamneri Field Unit	-7.97	43.72	0	0	35.75	39.9	-4.15
Sirohi Farm Unit, Avikanagar	1.38	16.5	0	0	17.88	16.32	1.56
Sirohi Field Unit, RAJUVAS, Bikaner	-10.82	22.06		0	11.24	13	-1.76
Surti Field Unit (TSP), NAU, Navsari	1.13	23.68	0	-3.83	24.81	18.84	5.97
Uttarakhand Local Goats	0	15	0	0	15	8.09	6.9
		341.14			**337.94**	**292.97**	

Total Expenditure =88%

Annexure II

ICAR-Central Institute for Research on Goats
AICRP on Goat Improvement
Makhdoom, Farah, Mathura 281122 UP, INDIA

F. No. 10-42(PC)/2014-15 Dated: Oct 14, 2014

Proceedings

The 14th Annual Review Meet of AICRP on Goat Improvement held at NAU, Navsari (Gujarat) on Sept 29, 2014

The meet was inaugurated by Dr. A. R. Pathak, Hon. Vice Chancellor of NAU, Navsari. In his address he emphasised the role of goats in rural livelihood, family nutrition and employment and stressed upon that integration of goat research with other livestock species, crop farming and for strengthening marketing structure. Dr. R. S. Gandhi, ADG (AP&B) in his inaugural deliberation emphasised on research on goat improvement through self-help groups, formulation of multiplier flocks, buck mother farms and its linkage with nucleus flocks, in-situ conservation of threatened goat breeds, value addition of goat milk and meat development of goat breeds, capacity building of stakeholders and development of package of management practices. The Director CIRG, Dr. S. K. Agarwal emphasized upon need of rapid transfer and adoption of improved management practices and technologies to the goat farmers. He also felt need for work on linkage development and create models of goat farms in each village for accelerating adoption of improved practices and organized marketing. He also emphasized for implementation of artificial insemination in genetic improvement programmes as scarcity of bucks is an emerging problem in field. The launching of Changthangi Goat Unit Leh and Adman Goat Unit Port Blair were also done.

The technical sessions was chaired by Dr. R. S. Gandhi and Co-chaired by Dr S.K. Agarwal, Director, CIRG. All the unit incharges presented the progress report of their unit for the year 2013-2014.

The PC report was presented by Dr. S. K. Singh, I/C AICRP on Goat improvement. The research work carried out at various centres, grading of centres, financial position etc. were presented and discussed in detail. After discussion the following points emerged.

i. Efforts should be made to include unexplored lesser known goat populations, goat genetic resources of MP, Chhattisgarh, Karnataka and Andhra Pradesh for conservation and improvement.
ii. Preparation of Information Management System using common format should be immediately initiated and implemented latest by 31st March, 2015. The PC and Director, CIRG was requested to fill-up the staff already sanctioned for Coordinating Unit and do the needful to get it done on from market.
iii. Contractual staff could be appointed from available contingency if there is delay in recruitment of permanent technical staff. However, efforts should be made to appoint sanctioned staff on priority.
iv. The ADG (AP&B) directed all Units to submit 10 good quality herd photographs of the breed within a period of one month.

Unit Wise Recommendations

1. Assam Hill Goat Field Unit, Khanpara (Assam)

The report was presented by Dr. N. Nahardeka, Professor (AG&B), Assam. The unit adopted Batabari (Dighirpar) of Darrang district and Khetri of Kamrup district of Assam as the two field clusters under the project. Performance was satisfactory. Following recommendations have been made.

i. The mortality up to weaning was high and the unit need to undertake suitable health and limit it to permissible limits.
ii. Breed characteristic, classification and data may be generated by the unit and submitted for evaluation by NBAGR, Karnal.
iii. Creation of Self Help Groups involving women should be promoted in the adopted area.
iv. Impacts analysis of improved breeding and health cover facilities should be carried out and documented.

2. Black Bengal Field Unit, Kolkata

The report was presented by Dr. P.K Senapati, Professor (AG&B), WBUAFS, Kolkata. He indicated the budget constraints in salary head. Performance of the unit was observed to have gone down over past performance. Following recommendations have been made.

i. Efforts should be made to improve the production performance of goats in adopted area.
ii. As adopted villages were in close vicinity, the Unit should adopt another area with larger flock size. This new area preferably be close to a KVK of the University for operational ease and in tribal area.
iii. The budget provisions to be looked into by PC, especially under Salary heads *vis-a-vis* post allotted to this Unit.
iv. Presentation should be made as per format supplied by Coordinating Unit.
v. Work should be carried out strictly as per technical programme.

3. Black Bengal Field Unit, Ranchi

The report was presented by Dr. L. B. Singh, PI, Black Bengal Field Unit, Ranchi. The flock size of goats was adequate and animal identification has been done along with preliminary survey. Regular health care facilities, vaccination and dipping have been provided to the flocks. He also presented performance of Bengal type goats in field area. Performance of the unit was satisfactory. Following recommendations have been made.

i. The bucks used should be evaluated for their breeding value and semen should be preserved.
ii. The unit to adopt farmers with bigger flocks and to include areas where the animals have comparatively higher body weights.

4. Gaddi Field Unit, Palampur

Dr. P. K. Dogra, Prof. (Animal Breeding) and Incharge of the unit presented the report. Because of migratory nature of flocks it was difficult to follow up goats during migration. The performance was satisfactory. Following recommendations have been made.

i. Unit should devise mechanism to follow-up goats during migration for performance recording and for the provision of requisite technical inputs.
ii. Study the marketing patterns and farming system while goat are in migration as well as in stationary flocks.

5. Ganjam Field Unit, Bhubaneswar

Dr. D.K. Karna, Associate Prof. (Animal Breeding) and Incharge of Ganjam unit presented the report. The home tract was distantly located from University Center. The unit was able to provide adequate health control measures. Because of large flocks, and bushy landscapes, animal identification was a little problem. Following recommendations have been made.

i. The Unit should strengthen the health center at each cluster and post staff over there.
ii. Animal identification and performance recording should be followed as per technical programme.

6. Malabari Field Unit, Thrissur

Dr. Thirupathy Venkatachalapathy, PI, Malabari Field Unit, Thrissur presented the report. The performance has improved but unit still needs further improvement. Following recommendations were made.

i. Efforts should be made to adopt farmers with larger flock size.
ii. Impact evaluation of project should be done.
iii. The AUC need to be resubmitted, immediately.

7. Marwari Field Unit, Bikaner

The report was presented by Dr. G.C. Gahlot, PI of Marwari Field Unit. The discussion was on part of budget and salary head. It was decided that the payments will be made as per provisions of project. The Performance of Unit was not satisfactory and the following recommendations have been made.

i. Salary of SRF should be drawn from contingency only.
ii. Animal identification, pedigree recording should be carried out on priority.
iii. Performance recording should be done on the basis of actual age and not on dentition pattern.
iv. Validation of milk production and growth and reproduction records should be done.
v. The Unit should open clusters in three different districts.
vi. Data should be rechecked before presentation.

8. Osmanabadi Field Unit, NARI, Phaltan

The report was presented by Dr. Chanda Nimbkar, Director, NARI, Phaltan and PI of the project. She presented the body weight growth, milk and reproduction data. Farmer's with superior animals were rewarded suitably and were encouraged in public. Training of village level project staff and interested goat owners in goat health and providing first-aid were conducted. This unit has started using and disseminating AI technology in field. The performance of the unit was satisfactory and following recommendations were made.

i. The Unit should have at least three clusters in the home tract of the breed.
ii. Superior animals should be purchased from the farmers and reared for buck production.
iii. AI should be validated under field condition.

9. Sangamneri Field Unit, Rahuri

Dr. S. Mandakmale, PI of the Unit presented the report including data on body weight growth, milk and reproduction. It was observed that the data needs to be properly analysed. The unit should distribute fresh bucks for replacing old bucks. The economic

gain from goat rearing was considerably low and should be re-assessed. The performance of the unit was satisfactory and following recommendations were made.

i. Unit should produce bucks for breed improvement in home tract.
ii. Impact analysis should be carried out.

10. Sirohi Field Unit, Vallabhnagar

The report was presented by Dr. R.K. Nagda, Incharge Sirohi unit. The performance was observed to be satisfactory and the following recommendations were made.

i. Salary head needs to be adjusted. Expenditure should not exceed the budget allotted to this Unit.
ii. Animal Identification, pedigree and performance recording should be continued.
iii. The unit should produce and supply more number of elite bucks to farmers and other agencies.
iv. This unit should actively collaborate with Sirohi Farm Unit at CSWRI, Avikanagar.

11. Surti Field Unit, Navsari

Dr. K. K. Tyagi, Incharge of the Surti unit presented the report. The unit has shown significant improvement. The area covered under project has got further scope for improvement. The lactation performances of goats were recorded. The economic aspects of traditional goat rearing by Ahirs under field conditions were presented. The performance of the unit was satisfactory and the following recommendations were made.

i. The animal identification need to be implemented immediately.
ii. Efforts should be made to strengthen goat breed society in the area.
iii. The unit should work on popularization of goat manure based Wormi- compost.

12. Barbari Farm Unit, CIRG Makhdoom

Dr. M.K. Singh, Sr. Scientist (AGB) presented the report. Performance of present generation goats was compared with base animal population. Improvements were observed in growth and lactation traits. Performance was satisfactory and the following recommendations were made.

i. The budget utilization was extremely low. Efforts should be made to utilize budget.
ii. The Unit has to adopt two–three KVK's/adequate farmers for validation of technologies and breed improvement in farmers flock. Necessary funds from allocated budget may be used for this purpose.

13. Jamunapari Farm Unit, CIRG Makhdoom

The report was presented by Dr. P.K. Rout, Principal Scientist, (AG&B) and comparative performance over the years were presented. Improvement was observed in growth and lactation traits and performance was satisfactory. Based on the discussions following recommendations were made.

i. The budget Utilization was extremely low. Efforts should be made to utilize budget provided to unit.
ii. The Unit has to adopt two–three KVK's for validation of technologies and breed improvement in farmers flock. Necessary fund from allocated budget may be used for this purpose

14. Sirohi Farm Unit, CSWRI, Avikanagar

The report was presented by Dr. S.S. Misra, principal Scientist (AG&B) and Incharge of the unit. A comparison was made for body weight growth and milk production over the years. Performance for the year was lower as compared to previous years. The following recommendations were made.

i. The unit needs to improve the performance of animals.
ii. This unit should actively collaborate with Sirohi field unit at Vallabhnagar.
iii. The Unit has to immediately adopt farmers and two–three KVK's for validation of technologies and breed improvement in farmers flock. Necessary funds from allocated budget may be used for this purpose.

14th Annual Review Meet ended with vote of thanks by I/C PC Dr. S. K. Singh to Hon'ble Vice Chancellor of NAU, Navsari and its faculty for extending all kinds of support for the successful conduction of meet. On this occasion Hon'ble ADG and Director CIRG gave their blessings to all units and asked to give their 100% and go as per rule.

Major Recommendations

xiii. Institute based units should expedite establishment of multiplier flocks in time frame manner. During current year they should establish at least 10 such units in the breed habitat.
xiv. Data on physical and performance characterization of Assam Hill goats and its comparison with Bengal goat.
xv. Proper recording of pedigree and performance data along with animal identification of goats should be seriously done by the Marwari and Ganjam units.
xvi. Adoption of management intervention needs to be enhanced at field units to improve production and reproduction efficiency.
xvii. Performance and pedigree recorded superior kids should be purchased from adopted area through a committee and not through open tender to ensure procurement of goats with good genetic potential.
xviii. Money should be utilised as per fund provisions made in the project.
xix. Selection of breeding buck and does should be strictly followed as per the technical programme.
xx. Cryopreservation of semen should be initiated in collaboration with Gynaecology department available in most of the Universities (Bengal, Osmanabadi, Sangamneri, Surti, Marwari, Barbari, Jamunapari, Sirohi).
xxi. Efforts should be made to form Goat Co-operative/ Societies / Self Help groups for each breed.
xxii. Each unit to produce 50 superiors male kids for future buck production.
xxiii. Units which are not getting RA/SRF as per qualification laid down under technical programme may recruit JRF.
xxiv. Documentation of findings should be expedited for the benefit of scientific & farmer's community.

List of Participants

1.	Dr. R.S. Gandhi, ADG(AP&B), ICAR
2.	Dr. S.K. Agarwal, Director, CIRG and Project Coordinator
3.	Dr. Vineet Bhasin, Pr. Sci.(AG&B), ICAR HQ, New Delhi
4.	Dr. S.K. Singh, I/C AICRP on Goat Improvement, CIRG Mathura
5.	Dr. G. C. Gahlot, I/C Marwari Field Unit, Bikaner
6.	Dr. P.K. Senapati, I/C Black Bengal Field Unit, Kolkata
7.	Dr. Thirupathy Venkatechalapathy, I/C Malabari Field Unit, Kerala
8.	Dr. K.K. Tyagi, I/C Surti Field Unit, Navsari
9.	Dr. R. K. Nagda, I/C Sirohi Field Unit, Udaipur (Raj.)
10.	Dr. Sanjay Mankakmale, I/C Sangamneri Field Unit, Rahuri
11.	Dr. D. K. Karna, I/C Ganjam Field Unit, Bhuvaneshwar
12.	Dr. Chanda Nimbkar, Director, Osmanabadi Field Unit, Phaltan
13.	Dr. P.K. Dogra, I/C Gaddi Field Unit, Palampur
14.	Dr. N. Nahardeka, I/C Assam Hill Field Unit, Assam
15.	Dr. S.S. Misra, I/C Sirohi Unit, Avikanagar (Raj.)
16.	Dr. L. B. Singh, I/C Black Bengal Field Unit, Ranchi
17.	Dr. A. K. Sharma , I/C, Himalayan unit, IVRI, Mukterwar
18.	Dr. D. V. Singh, I/C Uttarakhand Goat Unit, Pantnagar
19.	Dr. Jay Sunder, I/C, Andman Goat Unit, Port Blair
20.	Dr. M.K. Singh, I/C, Barbari, CIRG, Makhdoom
21.	Dr. P. K. Rout I/C Jamunapari, CIRG, Makhdoom
22.	Dr. Dige M.S. Scientist (AG&B), CIRG Mathura
23.	Dr. Feroz I/C Changthangi Giot Unit, Leh
24.	Sri C.S. Sagar AAO, PC Unit, CIRG, Makhdoom, Farah, Mathura