

ANNUAL REPORT

2012 – 13



**College of Agriculture,
Navsari Agricultural University,
Waghai – 394 730**



1. Introduction

The Dangs is situated in South-east part of the Gujarat. The district is bordered by districts of Navsari and Valsad in the West, Tapi in the North adjoining Maharashtra state in the South and East. The region is covered by hills of high altitude and rich forest.

Before Independence, several wars were fought between the five tribal kings of Dangs and the British. According to the history of Dangs, the biggest ever war took place at Lashkaria Amba in which kings of all five erstwhile states got together to protect Dangs from the British rule. The British were beaten and decided to discontinue war and resorted to compromise.

The Dangs consists of a series of foothills between the flat alluvial plains of south Gujarat and the high mountains of Sahyadris. The district has dense forest area populated mainly by the tribals. As per the 2011 census, the district has a population of 2, 26,769 divided almost equally between males and females. Dangs district has an average literacy rate of 76.80 per cent. The district comes under *South Gujarat Heavy Rainfall Zone-I Agro Ecological Situation-I*.

The Dangs is the smallest district of Gujarat State and is situated between the parallels of latitude 20°33'40'' to 21°50' N and the meridians of longitude 73°27'58'' to 73° 56'36''E. It has total geographical area of 1,72,366 hectares (i.e. 1736 sq km). Out of which, the forest area is about 59.74 per cent i.e. 1062 sq km (850 sq km of reserved forest and 212 sq km of protected forest) with only 33.80 per cent of the land comes under cultivated and cultivable fallow. Its elevation varies from 105 to 1317 meters above MSL. The interstate Highway No. 15 connects Gujarat and Maharashtra via Saputara. It is also connected by railways from Waghai to Bilimora (Navsari district) by narrow gauge link.

There are three types of agriculture land and soils in the Dangs viz; black cotton, lateritic and rocky. The annual rainfall varies from 2000 to 2500 mm with average rainy days of 50-55. *Ambica*, *Khapri*, *Purna* and *Gira* rivers pass through district.

The rivers have a high density of drainage and steeper gradient resulting into quick run off during monsoon. This causes higher rate of land erosion and wherein Agriculture is the only occupation in the district. The district has only 18 per cent area under irrigation. Rural economy can be enhanced by improvement in age old practices of agriculture. It is the need of the hour to go for overall development of the farmers, rural youths and women by updating their knowledge through various extension activities. The main thrust of this district is to give special emphasis on women empowerment and establishment of small cooperative dairies to meet out the growing demands of processed food, milk and milk products and other items for the large masses.

The cropping pattern of the district is mostly single rainfed. The major crops in *kharif* are paddy (35 %), finger millet (18 %) whereas, other crops are represented by little millet, sorghum, black gram, pigeon pea, etc which have 5-8 per cent area. In *rabi*, gram (60 %), wheat (19 %) and rabi Pigeon pea (13 %) are mainly cultivated. In general, productivity of these crops crop is low as compared to other parts of the state.

2. Agriculture Campus at Waghai

To perform various agricultural activities, the State Government established research farm in the year 1955 at Waghai in the Dangs district which was initially under the control of State Department of Agriculture. In 1972, it was transferred to the erstwhile Gujarat Agricultural University and after 2004; it

has been under the control of Navsari Agricultural University. It is divided at two different places; one is situated on the left side of road on the way to Ahwa in the village Rajendrapur, just 200 m from Waghai village circle, of which the total area is about 13.47 hectares. It consists of Main Hill Millet Research Station, Krishi Vigyan Kendra, Agriculture Cooperation and Marketing Polytechnic and the newly established College of Agriculture. The second part of the campus is situated at Rambhas village on the way to Saputara (4 kms from Waghai). The total area of this part is about 10.05 hectares wherein only research activities are carried out.

3. Activities at Waghai

1. Hill Millet Research Station

It was established in 1954-55 with a mandate of developing high yielding and early maturing varieties of paddy and various other hill millet crops along with their production technologies. Subsequently in 1977-78, the hill millet research was strengthened with establishment of "Strengthening of Hill Millet Research Scheme (SHMRS)". This is the only research station working on hill millets in Gujarat. Four varieties of hill millets have been released from this centre.

2. Agriculture School

It was started in 1985-86 with a view to generate technical manpower with two years of schooling in agriculture. Till 2009-10, 553 students have passed out from this school. About 90 per cent students have been placed in various jobs.

3. Agriculture Cooperation & Marketing Polytechnic

The Agriculture School was upgraded to Agriculture Cooperation and Marketing Polytechnic in 2010 with three years diploma programme. The

first batch of 30 students has passed out in June, 2013. Both boys and girls are studying in this Polytechnic with hostel facility at the campus.

4. Krishi Vigyan Kendra

KVK was established in 1984-85 to provide training to extension personnel and vocational training to the farmers of Dangs district. Various activities like on-farm testing and front-line demonstration are being carried by KVK in the district. It also works as knowledge centre of the district with regards to agriculture and allied branches.

5. College of Agriculture, Waghai

Agricultural schooling started in Dangs in 1985-86 which was later upgraded to the Polytechnic in Agriculture cooperation and marketing in 2010-11. However, there was no facility of higher education based specially on Agriculture and allied fields. This was more needed particularly for sons and daughters of poor tribals, small and marginal farmers who could ill afford to send their wards to far off places in Gujarat or outside the state. Hence, there was a strong need to establish an institute which can cater to the educational need of tribal population with respect to Agriculture and allied fields in particular. So, Government of Gujarat under Tribal Sub-Plan decided to establish full-fledged College of Agriculture at Waghai which became a constituent college of Navsari Agricultural University. Thus, College of Agriculture started functioning from 2012-13 and students were admitted to four years B.Sc.(Hons.) Agriculture degree programme for the first time in July, 2012.

4. Vision

A top class institution of learning dedicated to excellence in Agricultural sciences, industrial technology and the allied fields, research and development, extension and training for global competitiveness and cooperation.

5. Mission

To train the manpower needed for Agricultural development of the state of Gujarat. In addition to this paramount mission, research and extension education will also be the priority in near future.

6. Objectives

- To impart higher education in agricultural science and technology.
- To create cadre of agricultural professionals to meet the demand of agriculture sector in general and in tribal sector in particular.
- To prepare ample human resource to carry out basic and modern applied research in agriculture and allied fields.
- To cater the need for knowledge workers in tribal society of the forest area.

7. Year of Establishment

- 2012-13

8. Funding Agency

Tribal sub-Plan, Department of Agriculture, Government of Gujarat (BH 12402)

9. Departments

Agronomy

Ag. Chem & Soil Sci.

Horticulture

Entomology

Pl. Pathology

Genetics & Plant Breeding

Agril. Econ.

Extension Edu.

Animal Science

Stat. & Comp. Sci.

Agril. Engg.

English

Physical Education

10. Instruments Available

Sr No	Instruments and Appliances	Units	Sr. No	Instruments and Appliances	Units
1	Distillation Assembly	1	12	Computer	35
2	Spectrophotometer	2	13	LAP TOP	2
3	Flame Photometer	2	14	Laser Printer	4
4	Mechanical shaker	1	15	Scanner	2
5	Hot water bath	1	16	Fax machine	1
6	Weighing balance	2	17	LCD Projector	2
7	Nitrogen Gel plus Analyzer	1	18	Video Projection screen	2
8	Hot Air Oven	1	19	Xerox machine	2
9	Hot plate	1	20	RO Water system	3
10	Student Microscope	10	21	Audio Visual system	1
11	Digital Camera	1			

11. Academic Programme

UG	B.Sc.(Hons.) Agriculture	8 Semesters
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12. Students Enrolled

Category	2012-13		
	M	F	Total
Gujarat Board			
SC	01	00	01
ST	05	03	08
SEBC	09	02	11
General	20	02	22
Other Board			
	01	02	03
Total	36	09	45

13. Staff Position (As on 31.03.2013)

Faculty Name	Designation	Discipline	Contact details
Dr. Z. P. Patel	Principal	Entomology	Tel. No.- 02631 246688 caw@nau.in, zprin@nau.in
Dr. P. P. Chaudhari	Professor & Research Scientist	Agril. Botany	Mobile No.- 9427163653 E-mail ppchaudhari@nau.in
Dr. A. P. Patel	Associate Professor	Agronomy	Mobile No.- 9427155512 arya_sunrise@yahoo.co.in
Dr. R. F. Chaudhary	Associate Professor	Plant Pathology	Mobile No.- 9426897839 rfchaudhary@yahoo.co.in
Dr. C. J. Patel	Associate Professor	Agril. Entomology	Mobile No.- 9725006536 cjpatel66@yahoo.co.in
Dr. V. J. Zinzala	Associate Professor	Agril. Chemistry & Soil Science	Mobile No.- 9879857823 vjzinzala@yahoo.co.in
Prof. K. B. Patel	Assistant Professor	Physical Instructor	Mobile No.- 99139 07794 krnlptl01@gmail.com
Prof. V. T. Shinde	Assistant Professor	Soil & Water Engineering	Mobile No.- 8128984318 vipulshinde123@gmail.com
Prof. H. P. Patel	Assistant Professor	Agril. Chemistry & Soil Science	Mobile No.- 98792 91253 hiren_agri36@yahoo.co.in
Prof. R. P. Bambharolia	Assistant Professor	Microbiology	Mobile No.- 9979502166 bambharolia_raju@yahoo.co.in
Prof. S. Ojha	Assistant Professor	Statistics	Mobile No.- 9662107466 sankalpa.stat@gmail.com
Dr. Manju Singh	Assistant Professor	Genetics & Plant Breeding	Mobile No.- 8469101586 manju23icar@gmail.com
Dr. B. Chakraborty	Assistant Professor	Horticulture	Mobile No.- 8238792464 bchakraborty@nau.in
Prof. V. S. Thorat	Assistant Professor	Agril. Economics	Mobile No.- 8469552697 vishal.lotus@gmail.com

14. Infrastructure Development

- Ever since the establishment of College of Agriculture at Waghai, the construction of girls hostel and polytechnic buildings have started which are nearing completion in few months from now.
- Presently, the college is running in RKVY building. In spite of infrastructural problem, laboratory of Agricultural Chemistry and Soil Science has already been initiated.
- Two digital class rooms have been established in the college with computer and LCD projectors.
- Computers along with their peripherals have been purchased for students so as to prepare them for computer and IT lectures.
- Necessary equipments required for introductory course of Entomology have been purchased and provided to the students.
- Students are regularly taken to Rajendrapur farm of NAU; Waghai to acquaint them with diversity of crops which serve as practical in all the disciplines of Agriculture.
- Separate hostels equipped with all the necessary amenities have been established for boys and girls.
- Drinking water problem of students has been solved by installation of Reverse Osmosis fitted water cooler in hostels as well as in the mess.



College New Building under Construction



Krushi Vigyan Kendra



Polytechnic College



Hill Millet Research Station



College Bus

Available Facilities at Campus



Boys' hostel



Girls' hostel



Digital Classroom



Computational facilities



Laboratory facilities

15. Mess and Sports Facilities



Mess facility at Hostel



Sports facility at Campus

16. Students of B.Sc.(Hons.) First Year



Orientation Programme

Immediately after admission of students in First semester of B.Sc.(Hons.) Agriculture four years degree programme, orientation programme was organized by the college so as to acquaint them with educational system in Agriculture and Agricultural University. The students attended this programme along with their parents and relatives. All the technical and non-technical details of this new system which is quite distinct from traditional universities and their respective schools and boards were explained by the principal, academic Incharge and other staff members of the college. The details of the available hostel and mess facilities were also explained to each and every student. The students were also explained about the job prospects and educational career in Agriculture after completing their degree programme

Preparation of Study Material

- Practical manuals have been prepared for students of first and second semesters of B.Sc.(Hons.) Agriculture in all the disciplines.
- Similarly, practical manuals for students of third semester have also been prepared.
- Likewise, in all the disciplines, teachers provide study materials in the form of notes and question bank to the students.

17. Financial Position

Sr. No.	Particulars	Grant sanctioned (Rs)	Expenditure (Rs)	Balance/Unspent amount (Rs)
1.	Pay and allowances including T.A.	41,80,000.00	41,79,440.00	
2.	Recurring	11,75,000.00	11,75,000.00	
3.	Non-recurring	54,48,000.00	54,46,701.00	
4.	Civil works	00.00	00.00	
	Total	108,03,000.00	108,01,149.00	1851.00