

Inventory of Agriculture

2015



Lower Dibang Valley District



Krishi Vigyan Kendra

Balek, P.O- Roing

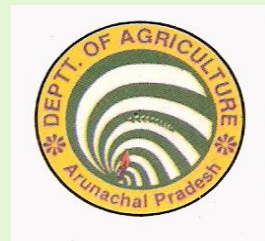
Lower Dibang Valley – 792110

Arunachal Pradesh

LOWER DIBANG VALLEY DISTRICT Inventory of Agriculture 2015



**Krishi Vigyan Kendra
Balek, Lower Dibang Valley
P.O - Roing
Arunachal Pradesh -792110**



Published by:

Krishi Vigyan Kendra
Balek, P.O - Roing
Lower Dibang Valley
Arunachal Pradesh - 792110
Phone: 03803 - 04245
E-mail: kvkldv@gmail.com

Compiled by:

Toktel Boko
Monika Panggam
Nanang Tamut
Jimmy Mize
V.K Pandey
Dr. Dipankar Hazarika
Habung Monpa

Edited by:

Dr.T.J Ramesha

Contact:

Senior Scientist & Head,
Krishi Vigyan Kendra
Balek, P.O – Roing
Lower Dibang Valley
Arunachal Pradesh – 792110
Phone: 03803 - 04245
E-mail: kvkldv@gmail.com

Word Processing : Habung Monpa

Preface

Ours is an agrarian country with a lot of natural and geographical diversities. Even in this day of industrial advancement, two-third of our population depends on agriculture directly or indirectly for their livelihood. Farmers are still the backbone of our economy and strengthening their position is highly essential and requires paramount importance.

Even though we have availability of immense information on agriculture and related aspect of district in various publications, it is unaccess to farmers due to its scattered form. Addition to this there are several modern technologies developed by various agricultural institutions and these technologies are not properly adopted by large number of farming community due to poor sharing of information ..Besides this several programs and schemes are framed by the Governments and these programmes are not reached successfully to grass root level due to lack of awareness among the farming community. The agricultural economy of the country can improve only when modern technologies are largely adopted by the farming community. It is also noted that the farmers are unaware about the various institutions and organizations engaged in agricultural research and development activities in their own localities.

Hence realizing the problems faced by farming communities in accessing information on agricultural programmes, schemes and other related aspects, this Inventory of Agriculture of Lower Dibang Valley District developed by our esteemed organization is expected to be useful to policy planners, farmers and all those who are concerned with development of Agriculture and related fields of the district.

In this publication, we have attempted to compile all the available information on various developmental organizations relevant to the district's agriculture. We have also provided the services and schemes offered by the organizations along with addresses for communication. We are fully aware about the importance of updating the contents periodically to include changes that are likely to happen due to policy changes. We assure to include any information that might have been omitted in the present compilation in our future versions of the publication.

The authors place on record their sincere gratitude to all the staff of KVK, Lower Dibang Valley, who have directly or indirectly contributed to publication of this compilation in the present form. We express our sincere thanks to the developmental departments i.e District Agriculture Officer, District AH & Vety Officer, District

Horticulture Officer, District Fishery Development Officer, District Statistic Officer .Field Officer, Spices Board India and other officials for providing required information.

We dedicate this publication to the farming community of our district and suggestions are invited from different stakeholders for further improvement.

Lower Dibang Valley

Editors

Contents

I. District in General	8
a. Climate	10
b. Topography	10
c. Forests	12
d. Water resources	13
e. Ports	13
f. Demography	13
g. Culture and Education	14
h. Health care sector	15
i. Banking and Allied sector	15
j. Local bodies and Rural development	15
II. Agricultural Scenario of the District	16
a. Crops	16
b. Livestock	18
c. Fisheries	19
III. Constraints in Agricultural Production	20
a. Crops	20
b. Livestock	21
c. Fisheries	21
IV. Institutional Support for Agricultural Development of the District	
a. Crops	22
1. Department of Agriculture	22
2. Krishi Vigyan Kendra (KVK), Lower Dibang Valley	24
3. Agricultural Technology Management Agency (ATMA)	28
4. Lead Bank	29
5. Other banking institutions	29

6. Farmers clubs and Voluntary organizations	29
7. Polytechnic colleges and Vocational higher secondary Schools	29
b. Livestock	30
1. Department of Animal Husbandry	30
2. Department of Dairy Development	30
3. Poultry Development Centre	30
c. Fisheries	
1. Department of Fisheries	31

V. Research and Development Organization Relevant to Districts Agriculture

- a. Crops
- b. livestock

VI. Plans and Schemes for Promotion of Agriculture

a. Crops	
1. Centrally Sponsored schemes	32
2. Spices Board	33
b. Livestock	34
c. Fisheries	34

VII. Farm Machinery Suitable to the District

a. Multiple Crop Thresher	35
b. Drum Seeder	36
c. Post Hole Digger	37
d. Tractor Operated Seed cum Fertilizer Driller	37
e. Rotary Tiller	38
f. Laser Guided Leveller	38

VIII. Annexure

1. Telephone Directory of Agriculture and related Departments/ Offices	39
2. Telephone Directory of SHG Groups/Farmers Club	40
3. Telephone Directory of Progressive Farmers	41

List of Figures

Fig.1 a. Location of Lower Dibang Valley District	8
Fig.1 b. Location of Lower Dibang Valley district	9
Fig.2. Percent of land area under different categories in Lower Dibang Valley District	16

List of Tables

Table 1. Climate of Lower Dibang Valley District	10
Table 2. Details of forests of Lower Dibang Valley District	12
Table 3. Population and literacy figures in Lower Dibang Valley District	13
Table 4. Land use pattern of Lower Dibang Valley District	16
Table 5. Area, production, Productivity of major crops in Lower Dibang Valley District	17
Table 6. Production and productivity including poultry in Lower Dibang Valley District	18
Table 7. Factors affecting productivity of major crops in Lower Dibang Valley District	20

CHAPTER – I. DISTRICT IN GENERAL

Lower Dibang Valley District, the 15th district of Arunachal Pradesh is located in the Eastern part of Arunachal Pradesh. The district is bounded on the North by Dibang Valley District and China, on the East Lohit District, and on the west East Siang and Upper Siang District of Arunachal Pradesh and on the south Sadiya Sub-division of Tinsukia district, Assam state.

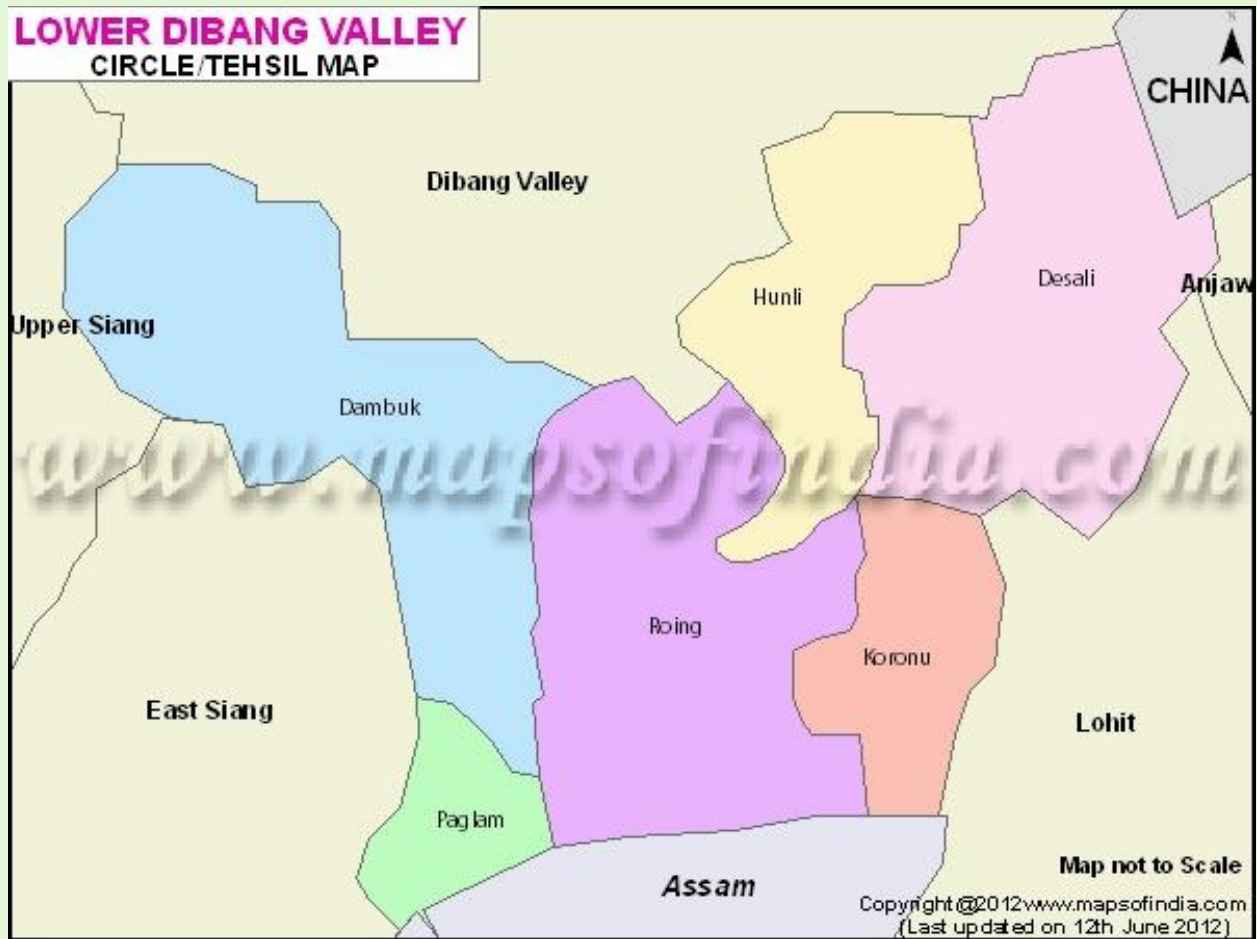
The Lower Dibang Valley named after River Dibang, one of the tributaries of mighty River Brahmaputra, which flows in the district.

The district has three sub-division viz. Roing, Dambuk and Hunli and 6 (six) administrative circles namely, Hunli, Desali, Dambuk, Paglam, Koronu and Roing.

Fig.1 a. Location of Lower Dibang Valley District



Fig.1 b. Location of Lower Dibang Valley District



A. Climate:

The district has a sub-tropical climate. The district experiences very heavy rainfall from March to August. Total rainfall recorded at Roing is 6642.32 mm during 2012. The lower belt of the district experience hot climate in summer. The northern belt of the district i.e. Desali and Hunli circle, enjoy very moderate climate during summer and extreme cold during winter.

Table 1. Climate of Lower Dibang Valley District

Sl. No	Agro-climatic Zone	Characteristics
1	Sub – tropical Plain Zone	The Climate is characterized by hot summer and moderately cool winter. The mean annual rainfall varies from 2590 – 3390mm and it exceeds PET greater part of the year and soil remains dry only for a month or so. Mean annual soil temperature is 22 ⁰ C or higher.
2.	Mid tropical Hill Zone	The climate is characterized by mild summer and moderate to severe winter. The mean annual rainfall ranges between 2000 to 5000 mm and it exceeds PET for most part of the year. The mean annual soil temperature varies from 18 to 22 ⁰ C.

Source : District Statistical Office, Lower Dibang Valley

B. Topography:

The northern part of it falls within higher mountain zone consisting of tangle peak and valley. The foot hills range lies in the southern part having plain with low altitudes. The area under Roing, Koronu, Dambuk and Paglam Circles are plain land, whereas the area under Desali and Hunli circles are hilly terrain with rugged and steep slopes.

Latitude	Longitude	Altitude	Geographical Area
27'30'N to 28'33'N	95'15'E to 96'30'E	390 mtrs.	39000 sqkm

I. **Soil type:**

Sl. No	Soil type	Characteristics	Area in ha
1.	Soils of undulating upland	Moderately shallow to deep, well drained, loamy or coarse loamy in texture with moderate to severe erosion hazards. The soils are strongly to moderately acidic in nature (pH 4.5 to 7.2), rich in organic matter (0.8 to 5.2% organic carbon) which decline sharply with depth. CEC is low to medium (9.5 to 23.3 $\text{CmolP}^+\text{kg}^{-1}$). Base saturation is very low to medium. Appreciable amount of Al^{3+} is observed.	4715
2.	Soils of gentle slopes	Deep, well to imperfectly drained, fine/ fine loamy/ coarse loamy or coarse silty with moderate erosion and slight to moderate flood hazard. Soils are moderately to slightly acidic (pH 4.6-5.8) and	11779

		moderate to high in organic matter content (1.3-3.7% organic carbon).	
3.	Soils of level to nearly level flood plain	Deep, well to moderately well drained, coarse loamy to coarse silty with moderate flood hazard. Soils on channel bars are moderately shallow, excessively drained and sandy in texture. Soils are slightly acidic to alkaline in nature (pH 5.5-8.4), high in base saturation	7073

C. Forest:

Forest reserved area of Lower Dibang Valley District is mostly situated in the hilly region and it has also entered upto the river bank of the plains.

There are two numbers of Forest Division in Lower Dibang Valley district namely, (i) Mehao Wild Life Sanctuary Division and (ii) Dibang Forest Division (T) Roing.

Areas under forest are as follows:

Table 2. Details of forest of Lower Dibang Valley

Reserved Forest area	610.78 sq.kms
Proposed Forest area	53.5 Hect.
Unclassified state forest	2822.23 sq.kms
Wild life sanctuary	281.50 sq.kms

Source : District Statistical Office, Lower Dibang Valley

Table 3. Population and literacy figures in Lower Dibang Valley as per 2011 census

Population as per 2011 Census			Literacy rate (in percentage)		
Male	Female	Total	Male	Female	Total
28,053	26,027	54,080	76.62 %	63.56%	70.38%

Source : District Statistical Office, Lower Dibang Valley

D. Water resources

There are 29 nos. of rivers in the district. River Dibang being the major river of length 150 km followed by Tara Tamak and Dri river along with minor river like Talo, Sisiri, Deopani etc.

Source: WRD department, Lower Dibang Valley

E. Ports: NA

F. Demography:

Sl. No.	Particulars	Value
I	Population	
	Male	28,127
	Female	25,859
	Total Population	53,986
	Rural	42,601
	Urban	11,385
ii	Population Density/ Sq. km	14
iii	Literates	
	Male (%)	76.62
	Female (%)	63.56
	Total (%)	70.38
iv	Details on SC/ST Population	
	Male	11286
	Female	11167
	Total Population	22,453
V	Labour profile	
	a) Total workers	21947
	b) Male workers	13967
	c) Female workers	7980
	d) Rural workers	18578
	e) Urban workers	3369
	f) Cultivators	10170

g)	Agricultural Labourers	1240	
h)	Household industry	184	
i)	Other workers	7152	
j)	Marginal workers	3201	
k)	Non Workers	28501	
l)	Average labour wages for farm operations (Rs. / man day of seven to nine hours)	Skilled Job	Unskilled job
	Peak seasons		
	Male	300	200
	Female		
	Lean seasons		
	Male	200	150
Female			
Vi	Major languages spoken in the district	Adi,Idu,Hindi,Assamese, English	
	Details on Birth – Death rate (per 1000 population)		
	Birth rate	1.937	
	Death rate	.053	

G. Culture and Education:

Sl. No.	Particulars	Numbers / Values
1	Educational facilities	
a)	Pre-primary (Nursery school)	03
b)	Primary	43
c)	Middle	24
d)	High	10
e)	Higher –Secondary	05
2	Professional colleges	Nil
a)	Medical	Nil
b)	Engineering	NIL
c)	Agriculture	NIL
d)	Veterinary/ Fisheries	NIL
e)	Others (Please specify) Govt. Aided Colleges	NIL
3	Number of Arts and Science Colleges	NIL

H. Health Care Sector:

District Hospital	Community Health Centre	Primary Health Centre	Health Sub centre	Health Unit	Homeopathic dispensary	Ayurvedic dispensary	TB Hospital	Leprosy Unit	No. of authorised bed (Gen.)
1	2	5	14	1	2	1	1	2	95

I. Banking and Allied sectors:

a)	Name of the lead bank	State Bank Of India
b)	No. of branches of lead bank in the district	01
c)	Other commercial banks	A.P cooperative apex bank, HDFC bank, Arunachal Pradesh Rural bank, Bank Of India

j. Local bodies and Rural development

I. Local Bodies

At district level, Zilla Parishad is headed by chairman and has five other members. There are six Anchal Samities at block level at Roing, Meka, Hunli, Dambuk, Iduli and Korunu which are headed by a chairperson and other members. At village level, Gram Panchayat are headed by chairperson and has 154 Gram Panchayat members. At the lowest rank, are the Head Gaon Burahs and Gaon Burahs at the village who are appointed by the government.

II. Rural development programme:

Presently, Rural development programmes like Integrated Waste Land Development Programme (Hariyali), Integrated Watershed Management Programme (IWMP) and Indira Awaaz Yojna (IAY) are being implemented by the DRDA, Lower Dibang Valley, Roing.

CHAPTER – II. AGRICULTURAL SCENARIO OF THE DISTRICT

A. Crops:

I. Classification of land and other land details

Table 4. Land Use Pattern of Lower Dibang Valley District

Sl. No.	Particulars	Area in ha	% to the Total Geographical area
1.	Total geographical area	390000	100
2.	Area under Forest	324436	83.1
3.	Barren and uncultivable land	7220	1.85
4.	Land put into non-agricultural uses	31935	8.18
5.	Cultivable waste	1450	.37
6.	Permanent pastures and other grazing lands	1385	.355
7.	Current fallow	1166	.30
8.	Net area sown	22408	5.7
9.	Gross cropped area	44050	

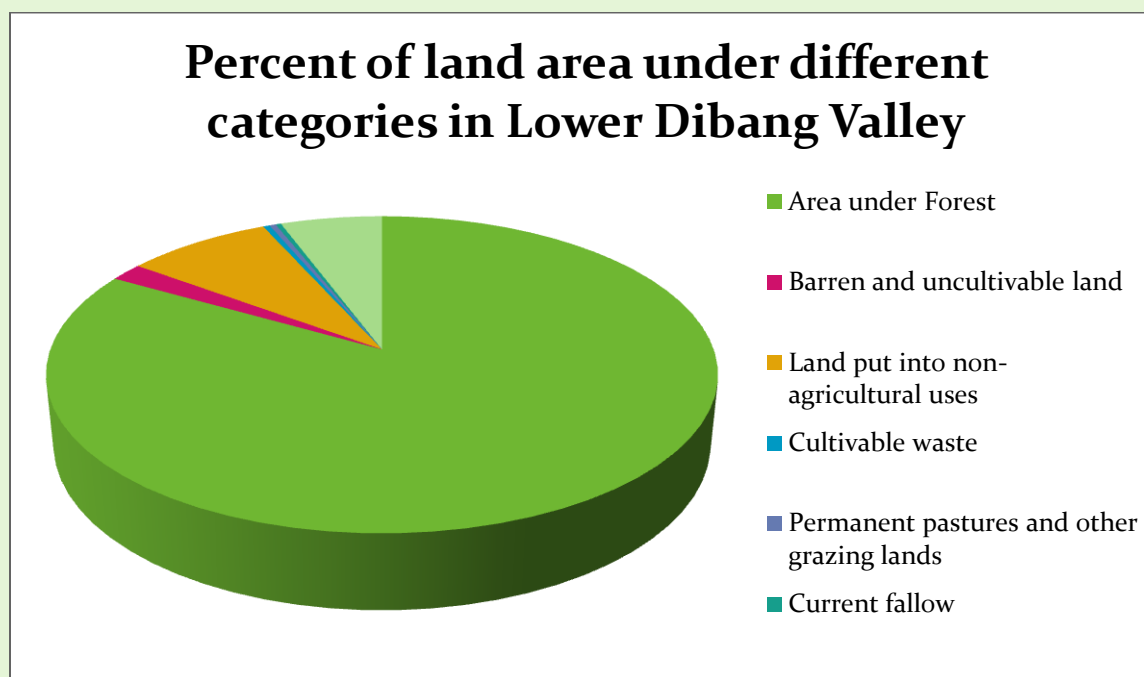


Fig.3 Percent of land area under different categories in Lower Dibang Valley

II. Area (ha) , Production (q) and Yield (q/ha) of major crops

Table 5. Area, production and productivity of major crops in Lower Dibang Valley

Sl. No.	Crop	Net Area sown (ha),	Area sown more than once (ha)	Total Cropped Area (ha)	Cropping intensity (%)	Production (q)	Productivity (q/ ha)
1.	Winter paddy	-	-	-		-	-
2.	Summer paddy	11180	-	-		206400	18.46
3.	Autumn paddy	-	-	-		-	-
4.	Mustard	5150	-	-		46350	9
5.	Jute	-	-	-		-	-
6.	Pea	-	-	-		-	-
7.	Lentil	-	-	-		-	-
8.	Potato	310	-	-		24800	80
9.	Rabi vegetables	200	-	-		4000	20
10.	Kharif vegetables	200	-	-		4000	20
11.	Maize	7885	-	-		102510	13
12.	Rabi Pulse	650	-	-		4870	7.4
13.	Turmeric	92	-	-		644	70
14.	Ginger	2880	-	-		216000	75
15.	Chilli	76	-	-		83	10.9
16.	Banana	510	-	-		241200	472
17.	Black gram	-	-	-		-	-
18.	Sugar cane	101	-	-		10100	100
19.	Pineapple	375	-	-		1474	3.9
20.	Citrus	905	-	-		16120	18
21.	Large Cardamom	14	-	-		30	2
22.	Millet	11465				10260	7
23.	Wheat	265				3980	15

Source: Department of Agriculture, Lower Dibang Valley

III. Irrigation

Irrigation	
Net irrigated area	7401.79 ha
Gross irrigated area	7401.79
Rainfed area	14847.74
Sources of Irrigation	Number/ Area (ha)
Tanks	2 Nos.
Other sources (spring)	3 Nos.
Total Irrigated Area	2431 ha

B. Livestock:

I. Livestock and poultry population (in nos.)

1.8	Livestock	Total
	Indigenous cattle	23814
	Improved / Crossbred cattle	-
	Buffaloes (local low yielding)	2749
	Improved Buffaloes	-
	Goat	10763
	Sheep	-
	Pig	12337
	Mithun	2104
1.9	Poultry	Total No. of birds
	Commercial	44392
	Backyard (Duck)	8869

Source: 19th Quinquennial Livestock Census, 2012, Deptt. of AH & Vety., Govt. of Arunachal Pradesh

II. Livestock and Poultry products production

Table 6. Production and Productivity of livestock including poultry

S.No.	Name of the Block	Cows milk in litres	Buffalo milk in litres	Poultry		Sheep and Goat
				Eggs in numbers	Broiler in kgs	
1	Roing-Korunu	14,90,000	1,26,000	24,000	21,900	500
2	Dambuk-Paglam	70,000	20,000	23,000	-	200
3	Hunli-Desali	-	-	13,000	-	50

Source: Dept. of AH & Vety. Lower Dibang Valley

IV. FISHERIES

The pisciculture programme was introduced in the district during the year 1972. There are 03(three) government fish farms viz. a) Govt. Fish seed Farm at iduli, b) Govt. Fish farm at Bolung, c) Govt. Fish farm at Kamponath Tank (Jia) and 07 (seven) people fish farms, 340 nos. of normal ponds are available.

In this context future prospects of fisheries development in the district lie in the direction of:

- (i) Popularizing of integrated fish farming with animal husbandry and horticulture
- (ii) Popularizing the culture of Mahseer fishes and other compatible varieties.
- (iii) Development of lakes/reservoir fisheries through regular stocking of fingerlings to achieve culture-capture fishing balance.
- (iv) Improving the status of fish seed production through infrastructure facilities by way of fish seed farm to meet the demand of fish seeds for stocking in all the bodies.
- (v) Educating farmers to use improved formulated seeds.

CHAPTER – III. CONSTRAINTS IN AGRICULTURAL PRODUCTION

A. Crops

Factors affecting productivity of major crops in Lower Dibang Valley District

Table 7. Factors affecting productivity of major crops in Lower Dibang Valley District

Sl. No.	Crop	Constraints
1.	Paddy	Use of low yielding local varieties, unscientific management attack of stem borer, rice bug and incidence of sheath blight, bacterial blight, false smut, blast and lack of adequate and timely availability of agricultural inputs.
2.	Maize	Lack of scientific technical know – how, use of local varieties, attack of stem borer, pink borer and incidence of banded leaf and sheath blight.
3.	Mustard	Use of local varieties, unscientific management, attack of aphids and incidence of leaf spot, white rust and downy mildew.
4.	Potato	Use of low yielding local varieties, unscientific management, attack of red ants and incidence of late blight.
5.	Ginger	Unscientific management, high incidence of rhizome rot and attack of stem borer.
6.	Orange	Use of low yielding varieties, unscientific management, attack of stem borer, bark eating caterpillar, leaf miner and incidence of phytophthora disease.
7.	Banana	Unscientific management, diseases like bunchy top, sigatoka, panama wilt and pest like rhizome weevil and pseudostem weevil are common pest and diseases.
8.	Soybean	Use of local varieties, unscientific management, attack of pod borer and incidence of bean yellow mosaic.
9.	Black gram	Unavailability of HYV, unscientific management, attack of pod borer and incidence of powdery mildew.
10.	Pea	Unavailability of HYV, Lack of technical know-how, attack of pod borer and incidence of powdery mildew.

B. Livestock

Constraints of livestock sector at Lower Dibang Valley are:

1. There is no feed milk in the district
2. Non availability of raw materials to prepare feed locally.
3. High transportation cost for marketing of livestock products.
4. No facility of cold storage for storing and processing of livestock products.
5. No well formed cooperative society related to milk or other livestock products.
6. Absence of liquid nitrogen plant which hampers the artificial insemination.
7. There is no hatchery to produce chick
8. Absence of slaughter house for quality need production
9. Lack of knowledge among the farmers towards value addition of milk or other livestock products
10. Adverse weather condition and poor connectivity.

C. Fishery

1. Unaware of scientific know-how on different farming system
2. Lack of skilled manpower force
3. Unorganized supply of farm inputs
4. Poor establishment of cooperative societies/farmers interested groups/farmers club etc.
5. Poor linkage among the farmers and online departments
6. No maintenance of farm records and documentation of farm activities by the farmers to assess/confirm economic viability of this enterprise.
7. Establishment of farm sites outside the monitoring distance of the land owner
8. Subsistence on traditional methods of farming system
9. Lack of awareness on farm mechanization
10. Dependency of aqua farmers on the middle men for the sale of farm produces.

CHAPTER – IV. INSTITUTIONAL SUPPORT FOR AGRICULTURAL DEVELOPMENT OF THE DISTRICT

There are several institutions in the district devoted for the development of agriculture and related fields.

a. Crops

I. Department of Agriculture

The State Department of Agriculture has a network of establishments in the district to cater to the needs of the farming community. The department has following offices in the district:

i) District Agricultural Office

This is the apex office to supervise and monitor agricultural development activities in the district. The office is located at Roing, Lower Dibang Valley. The District Agricultural Officer is the Head. He is assisted by Agriculture Development Officers in performing the day to day activities of the department.

Address for communication

District Agricultural Officer
Roing, Lower Dibang Valley – 792110
Arunachal Pradesh
Phone: 03803-222409

ii) District Agricultural Farm, Bolung

The farm is located at village Bolung, about 8 km away from the district headquarter. The farm is mainly involved in production and distribution quality seed materials (cereal,pulse and Maize).

iii) Department of Horticulture

The establishment of Horticulture department in the district is mainly for :

- a) Procurement and distribution of improved seeds.
- b) Opening of new orchard /people horticulture garden.
- c) Rejuvenation of Old and un-productive fruits plants and horticultural tools and implements.
- d) Cardamom cultivation
- e) Vegetable garden.

There is a nursery at district headquarter, Roing and 3266 ha brought under horticultural garden.

Address for communication

District Horticultural Officer
Roing, Lower Dibang Valley – 792110
Arunachal Pradesh

iv) Horticulture Nursery, Balek

The farm is located at Balek, about 12 Km away from the district head quarter Roing. The farm is involved in the production and distribution of coconut seedlings, vegetable seeds, fruit plants.

v) Govt. Citrus Nursery, Balek

- a) Total Area of farm – 10 hact.
- b) Year of established – 2000
- c) Area under crop – 7.25 hact.
- d) Demonstration plot of Orange – 3.5 hact.
- e) Demonstration plot of Valenchia – 0.5hact
- f) Demonstration plot of Mosambi – 0.5 hact.
- g) Demonstration plot of Litchi – 0.5 hact.
- h) Demonstration plot of Arecanut – 0.5 hact.
- i) Demonstration plot of Vegetable – 0.5 hact.

II. Krishi Vigyan Kendra (KVK), Lower Dibang Valley

The Kendra started functioning on November 2005 under the administrative control of the Directorate of Agriculture, Naharlagun, Govt. of Arunachal Pradesh. The Kendra is situated at Balek, about 12 km away from the district headquarter, Roing.

a) Mandates

- i. To conduct On Farm Testing trials for identifying technologies in terms of location specific sustainable land use systems.
- ii. To organize Front Line Demonstrations on various crops to generate production data and feedback information in farmers' fields.
- iii. To organize trainings to update the extension personnel with emerging advances in agricultural research on regular basis.
- iv. To organize short and long term vocational training programmes in agriculture and allied fields for the farmers and rural youth with emphasis on learning by doing for higher farm production and generating self employment opportunities to the youth.

b) Programmes

i. Training Programmes

The KVK is imparting regular training programmes of various duration in agriculture and allied fields for farmers, farm women and rural youth.

The major topics of the training programmes conducted at KVK are as follows:

Agronomy

1. Vermicomposting.
2. Azolla production technology
3. Weed management in Paddy.
4. Integrated Nutrient Management in Paddy
5. Production technology of true potato seed
6. Awareness in Protection of Plant Variety and Farmers Right Act.
7. System rice intensification
8. Production technology of soybean var. JS 335
9. Scientific cultivation of paddy var. CAU-R1
10. Scientific cultivation of potato var. Khufri Jyoti
11. IFS in Watershed management

Plant Protection

1. Mushroom Production Technology
2. IDM in Paddy
3. IPM in Potato
4. Bee keeping
5. IPM in Mandarin Orange
6. Management of Fusarium Wilt in Tomato
7. Rhizome rot disease management in Ginger
8. Management of Panama wilt disease in banana
9. Bordeaux mixture and Paste preparation
10. IPM in Ginger
11. Soil Solarization method in nursery bed
12. IPM in Cole crops.

Horticulture

1. Production technology of vegetable crops
2. Management of Orange orchard
3. Production technology of Tomato
4. Production technology of Cardamom
5. Nursery raising of vegetable crops
6. Kitchen gardening
7. Production technology of vegetable and spices
8. Production technology of banana
9. INM in Horticulture crop
10. IFS in Watershed management

Livestock

1. High yielding fodder production for dairy farmers.
2. Value added products from milk (paneer)
3. Backyard poultry farming
4. Care and management of piggery
5. Integrated livestock cum fish farming
6. Care and management of bird
7. Recent emerging advances in livestock sector
8. IFS in Watershed management
9. Sensitization on R2B vaccine

Home Science

1. Skill development programme for tribal women (craft making)
2. Value addition of milk (Paneer)
3. Tie and Dye.
4. Nutri – farm (Iron and Folic acid rich vegetables for preventing Anaemia)
5. Value added products from fruits and vegetables.
6. Women friendly tools.

Fishery

1. Smoking of Fish through Community Fish Smoking Kiln
2. Composite fish culture
3. On farm feed formulation
4. Pre-stocking Management in compost fish culture
5. Ornamental fish
6. Integrated farming
7. Preparation of value added products from fish

ii. Frontline Demonstration

Organizing Front Line Demonstrations on newly released technologies in horticultural, field crops, fisheries and animal sciences under farmers' field conditions to generate production data and feedback information is one of the mandates of the Kendra.

iii. On Farm Testing

On Farm Testing programmes aim at testing the new technologies developed at research centres in the fields of crops, horticulture, animal husbandry and fisheries to ensure their suitability and sustainability to specific locations and to suggest or modify or refine the technology in real farm situations with the active participation of the farmers.

iv. Farm Advisory Services

The Kendra organizes field visits as per the requirements of farmers to solve specific field problems. The Kendra also encourages the farmers in remote and distant locations to use communication media to contact the centre to solve their immediate field problems.

v. Farmers Exposure Visits

The Kendra organizes exposure visit for farmers of the district to various research centre.

vi. Farmer's visit to the Kendra

Farmers are encouraged to visit the Kendra in person to discuss and solve their specific field problems and to get hands-on knowledge on the latest technologies available in agriculture and allied fields.

vii. Supply of seed and planting materials

The Kendra produces and supply planting materials of vegetable crops, fodder etc.

viii. Other extension activities

The Kendra also organizes the following programmes:

- a) Field days
- b) Film shows
- c) Publication of popular articles
- d) Publication of technical folder
- e) Publication Electronic media (CD)
- f) Exhibition
- g) Vaccination camp for Foot and mouth disease
- h) Crop Calendar
- i) News Letter
- j) SMS Portal

Address for communication

Senior Scientist & Head
Krishi Vigyan Kendra, Balek
Lower Dibang Valley, P.O – Roing
Arunachal Pradesh – 792110
Phone : 03803-04245
e-mail :kvkldv@gmail.com

III. Agricultural Technology Management Agency (ATMA)

Agricultural Technology Management Agency (ATMA) is a registered society of key stakeholders involved in agricultural activities for sustainable agricultural development in the district. It aims at integrating research and extension activities and decentralizing day-to-day management of the public Agricultural Technology System (ATS). At state-level, it operates under the guidance of a Governing Board that determines programme priorities and assesses impact of programmes. The ATMA is constituted by drawing members from all research and extension units within the district such as Zonal Research Stations or sub-stations, Krishi Vigyan Kendras and the key line Departments of Agriculture, Animal Husbandry, Fisheries, Sericulture, Agro industries, etc. The Lower Dibang Valley District ATMA office is attached with Department of Agriculture located at Roing and the Deputy Commissioner is the chairman.

a) Objectives

1. To identify location specific needs of farming community for farming system based agricultural development.
2. To set up priorities for sustainable agricultural development with a farming systems approach.
3. To draw plans for production based system activities to be undertaken by farmers/ultimate users.
4. To execute plans through line departments, training institutions, NGOs, farmers organizations and allied institutions.
5. To coordinate efforts being made by various line departments, NGOs, farmer's organizations and allied institutions to strengthen research extension-farmers linkages in the district and to promote collaboration and coordination between various State funded technical departments.
6. To facilitate the empowerment of farmers/producers through assistance for mobilization, organization into associations, cooperatives etc. for their increased participation in planning, marketing, technology dissemination and agro-processing etc.
7. To facilitate market interventions for value addition to farm produce.

Address for communication

Project Director, ATMA
District Agricultural Officer
Department of Agriculture
Roing, Lower Dibang Valley – 792110
Arunachal Pradesh

IV. Lead Bank

The Lead Bank Scheme provides leadership in initiating, streamlining and accelerating the process of development of the respective district by enlisting the co-operation of other banks and by maintaining continuous liaison with Government and quasi Government agencies. The State Bank of India functions as the lead bank in the district.

Address for communication

Branch Manager
State Bank of India, Roing
Lower Dibang Valley
Arunachal Pradesh – 792110

V. Other banking Institution

Other banks such as Bank of India, HDFC, Apex bank and Arunachal Pradesh Rural Bank are there at district headquarter.

VI. Farmers Clubs

Krishi Vigyan Kendra, Lower Dibang Valley has established 10 farmers club at various villages.

There are many voluntary organizations and farmers groups working for development of the farming community.

VII. Polytechnic colleges and vocational higher secondary schools

The district has one Institutional Training Institute (ITI) located at district headquarter, Roing.

b. Livestock

1. Department of Animal Husbandry

Livestock are reared by the local with an aim to get meat, eggs.
The animal husbandry activities for the development of livestock are divided into two parts:

- a) Animal health coverage
- b) Livestock development and production

At present the district is having 6 (six) Veterinary Dispensaries and 7(seven) Veterinary Aid Centres.

2. Department of Dairy Development

The district has no separate dairy development department. Some small scale dairy farms were developed under private sector to meet demand of milk supply.

3. Poultry Development

The district has 1 (one) govt. poultry farm which include broiler project an chick rearing centre, beside this there are several small scale private poultry farms.

Address for Communication:

District Veterinary Officer
Department of A.H. & Vety.
Roing, Lower Dibang Valley – 792110
Arunachal Pradesh
Phone : 03803 222413

c. Fisheries

1. Department of Fisheries

The fishery department has started functioning independently in the district during 1989-90. Earlier it was a part of Agriculture department. The pisciculture programme was introduced in the district during the year 1972.

There are 3 (three) Govt. fish farms and 7 (seven) private fish farms.

Fish farm Details

(i) Iduli Fish Farm

Year of establishment : 1997-98
Water Area : 1-2ha
Maximum Depth : 1-1.5mtr
Major species cultured : Silver Carp, Rohu, Mrigal, Grass Carp, Calbasu & gonius
Maximum size of fish harvested : 3.5 kgs

(ii) Sally Lake

Year of Establishment : 1975-76
Water Area : 2 ha
Maximum Depth : 8 mtrs
Average Depth : 3.6 mtr
Altitude : 390 mtrs
Temperature : Max -34⁰C
Min – 10⁰C
Annual Rainfall : 3512 mm
Major species cultured : Silver Carp, Catla, Rohu, Mrigal, Grass Carp, Calbasu and Gonius, Mahseer (Golden Mahseer).

CHAPTER – V. RESEARCH AND DEVELOPMENT ORGANIZATION RELEVANT TO DISTRICT’S AGRICULTURE : NA

CHAPTER – VI. PLANS AND SCHEMES FOR PROMOTION OF AGRICULTURE

A. Crops

1. Centrally sponsored schemes

i) National Food Security Mission (NFSM)

National Food Security Mission has been launched as a Centrally Sponsored Scheme funded by Central Government. It envisages to focus on districts which have high potential but relatively low level of productivity performance at present.

Address for communication

Joint Secretary
National Food Security Mission
Dept. of Agriculture & Cooperation, Ministry of Agriculture
Krishi Bhawan, New Delhi - 110 001
Phone: 011-23381176
e-mail: khullar.m@nic.in, krishidir@gmail.com
Website: www.nfsm.gov.in

ii. Rashtriya Krishi Vikas Yojana (RKVY)

Concerned by the slow growth in agriculture and allied sectors, the National Development Council resolved to launch the special Additional Central Assistance Scheme RKVY. The main objective of the scheme is to achieve 4% annual growth in agricultural sector during the XIth Plan by ensuring holistic development of agriculture and allied sectors. The basic features of this scheme are:

1. Incentives to States so as to increase public investment in agriculture and allied sectors.
2. Provide flexibility and autonomy to the state in the process of planning and executing schemes.
3. Ensure preparation of schemes based on agro climatic conditions, availability of technology and natural resources.
4. Ensure that local needs crops priorities are better reflected in the schemes.
5. Reduce yield gap in important crops, through focused interventions.

6. Maximise returns to farmers.
7. Bring about quantifiable changes in production and productivity.

2. Spices Board

(i) Developmental Schemes

- a. Large cardamom replanting- up to 4 ha
- b. Large cardamom planting material production
- c. North East ginger cultivation up to 2ha
- d. Lalchadong Turmeric cultivation upto 2ha
- e. Irrigation structure for large cardamom
- f. Rainwater Harvesting(Large cardamom)
- g. Irrigation Equipment (Large cardamom)
- h. Agriculture Implements(Large cardamom)
- i. Plant Protection Equipments (Large cardamom)

(ii) Post Harvest Improvement Scheme

- a. Pepper Thresher
- b. Modified Bhatti
- c. Ginger Slicing machine

(iii) Promotional Programme

Export promotion of 52 classified spices under Boards Constitution, conduct of QIT Programmes & Market Linkage Programme & promotion of Spice Producers Society (S.P.S) Participation in National & International Trade Fairs to promote Indian spices & spice value added products, oils & oleoresins etc.

Address for Communication:

Office of the Field Officer
Spices Board India
District Horticulture Office Campus
Roing, Lower Dibang Valley
Arunachal Pradesh – 792110
Email: fosbroing@gmail.com

b. Livestock

1. Centrally sponsored scheme

(i) Livestock insurance scheme

The main objective of the scheme is to provide financial support (50% subsidy) to the poor farmers if any casualties arise to the livestock. The scheme prove beneficial in terms of minimize the risk factor of livestock farming and attract the farmers towards the sector.

c. Fisheries

(i) Schemes

The sanctioned schemes under fisheries sector against the district are implemented by department. The schemes under taken are:-

- (i) Fish farmers Development Agency (FFDA)-(CSS)
- (ii) Fishermen Welfare Schemes (FWS)-(CSS)
- (iii) National Fisheries Development Board (NFDB)
- (iv) Integrated Fish Farming
- (v) ICAR Sponsored scheme. (The project on Artificial Propagation and Seed Raising of Chocolate Mahseer) at Govt. Fish Seed Farm, Iduli by the National Research centre on Coldwater Fisheries, Bhimtal (ICAR) Uttaranchal.

(SOURCE : DFDO, Lower Dibang Valley)

(ii) FISHERIES DEVELOPMENT ACTIVITIES UNDER PRIVATE SECTOR

Motivation of fish farmers through training is organized every year for imparting training on pond management in private sector. Also propagation of fisheries in natural resources to protect and conserve natural habitats is one of the major fisheries development activities. The constraints faced by the department as well fish farmers of the district are enormous which push back the developmental schemes under the fishery sector.

- a. Composite Fish Culture
- b. Commercial Fish Farming
- c. Magur Culture
- d. Renovation of old fish ponds
- e. Integrated Fish Farm under RKVY assistance
- f. Fish seed supply (under State Plan)

CHAPTER- VII. FARM MACHINERY SUITABLE TO THE DISTRICT

1. Multiple Crop Thresher

It is tractor drive. It is suitable for threshing of wheat, rice, sorghum, soyabean, sunflower, mustard and linseed. The output for paddy was 200-275 kg/ hour. It saved 25-30% labour and operating time and 225 on cost of operating compared to threshing by conventional method.



2. Drum Seeder

Manually operated sprouted rice seeder suitable for 4,6, and 8 rows . The 6 rows seeder the filed capacity is 0.125 ha / hour with labour requirement of 15-20 per hectare saving in cost due to row seedling compared to hand broadcasting.



3. Post Hole Digger

A tractor driven post hole digger is a tool used to dig narrow holes to install posts, such as fences and signs.



4. Tractor operated Seed-cum-Fertilizer driller

It is used to broadcast fertilizers as well as seeds at the same time. It saves time as well as labour cost as compared to conventional method.



5. Rotary Tiller

A rotary tiller is a mechanized cultivating implement that is used to prepare soil for planting. It is the most popular power tool among the farm implements. It prepares a smooth, loose seed bed. Rotary tiller combines with the function of harrow and cultivator into a multiple machine. It is used to prepare a soil of all types of crops.



6. Laser Guided Leveller

Laser guided land levelling makes the levelling process easy, faster and cheaper. The following are the advantages of Laser Guided Leveller:-

- a. 25-30% Saving water
- b. Land no need to make bunds and channels for irrigation.
- c. Increase yield by 10-15% due to even crop stands and full land utilization
- d. Energy saving due to less requirement of water and tractor time for levelling.
- e. Improvement in nutrient use efficiencies.
- f. Weed control, labour saving and time saving etc.

Levelling requires soil to be shifted from the high points of the field to low points.

CHAPTER - VIII. ANNEXURE

1. Telephone directory of important agriculture and related departments / offices in Lower Dibang Valley District

Sl.No.	Department	Contact No.
1.	District Agriculture Office	03803-222409
2.	District Horticulture Office	No Landline
3.	District A.H. & Vety. Office	03803 – 222413
4.	District Fishery Development Office	03803 - 222313
5.	Divisional Forest Office(Dibang Forest Division)	03803 - 222528
6.	Divisional Forest Office (Mehao Wildlife Sanctuary)	03803 – 222408
7.	Forest Training School	03803 - 222468
8.	District Informatics Office (NIC)	03803- 223415
9.	Krishi Vigyan Kendra	03803- 04245
10.	Lead Bank (State bank Of india)	03803 – 222240
11.	Irrigation and Flood Control Department	03803 – 223229
12.	Veterinary Dispensary	03803 - 222335

a) Contact details of Self Help Group/Farmers club

Sl. No.	Group Name	Address	Phone No.
1	Nani Jho, Roing	P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh - 792110	9862857682
2.	Agam Sirum, Midland	P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	9863485508
3.	Ergam Sirum, Rayang	P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	8257079033
4.	Mone, Parbuk	P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	9862844487
5.	Ledum, Jia	P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	9612384147
6.	Inniya Gaba Johway Amohang	P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	9862162500
7.	Kebali Chi Yaku Alombro	P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	9402070061
8.	Aido	P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	9436019066
9.	Athu Pupu, Ezengo	P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh - 792110	9862947564
10.	Farmers Club Bolung	Bolung, P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh - 792110	9612400259

b) Contact details of progressive farmers in Lower Dibang Valley District

Sl. No.	Name	Address	Phone No.
1	Mr. Tokmin Perme	Village - Jia, P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh - 792110	9436048144
2.	Mr. Jabong Linggi	Village – Kebali, P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	9402898805
3.	Mr. Kamili Misayo	Village – Iphingo, P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	9436253378
4.	Mr. Tokmin Pertin	Village – Bolung, P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	9436251314
5.	Mr. Okili Linggi	Village – Rukmo, P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	7308134466
6.	Mr. Jatan Pulu	Yibuk, P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	9436648219
7.	Mr. Kamin Pertin	Village – Bolung, P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	9612384001
8.	Mr. Raju Linggi	Village - Iduli, P.O-Roing, Lower Dibang Valley District, Arunachal Pradesh – 792110	9402701044