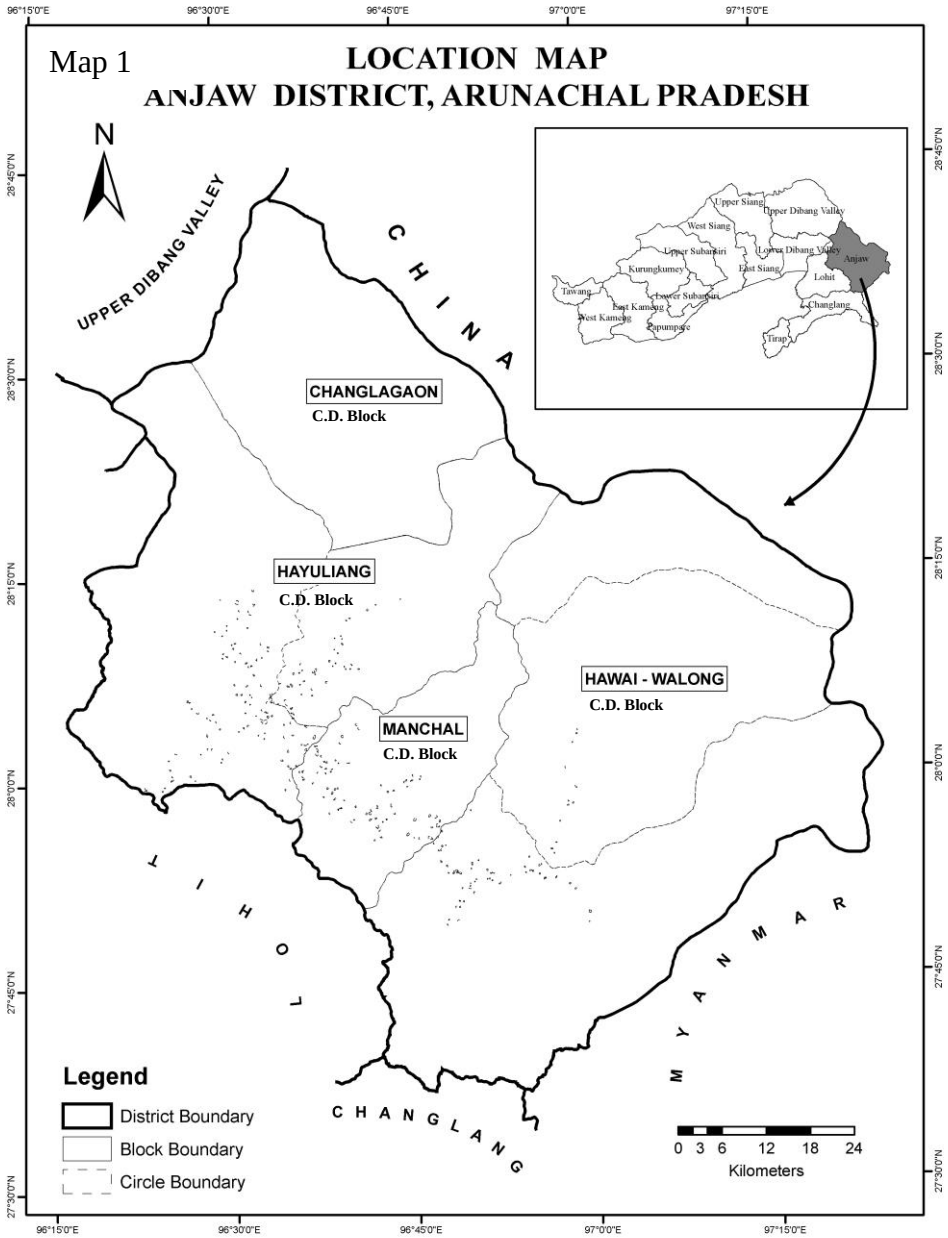
Introduction (Background information of Anjaw District)

Anjaw District with its Headquarter at Hawai was created on 16th February 2004 under The Arunachal Pradesh Re-organization of Districts Amendment Bill (though it was deemed to have come into force on 4th December, 2003) with Eight Administrative Units, namely Hayuliang, Hawai, Manchal, Goiliang, Walong, Kibithoo, Chaglogam and Metengliang. Anjaw District have 4 C.D. blocks namely Chaglongam C.D. block, Hayuliang C.D. Block, Manchal C.D. Block, Hawai-Walong C.D. Block. Hawai, at an altitude of 1296 m above sea level, is the district headquarters, located on the banks of the Lohit River, a tributary of the Brahmaputra River. The district was part of the erstwhile Lohit district of the state. The territory of the district is spread over 7098.99 Km^2 with a village population of 19898 according to 2011 census. By geographical area, it accounting 7.39 per cent of the state total, the district is a relatively larger one than the average district of the state.

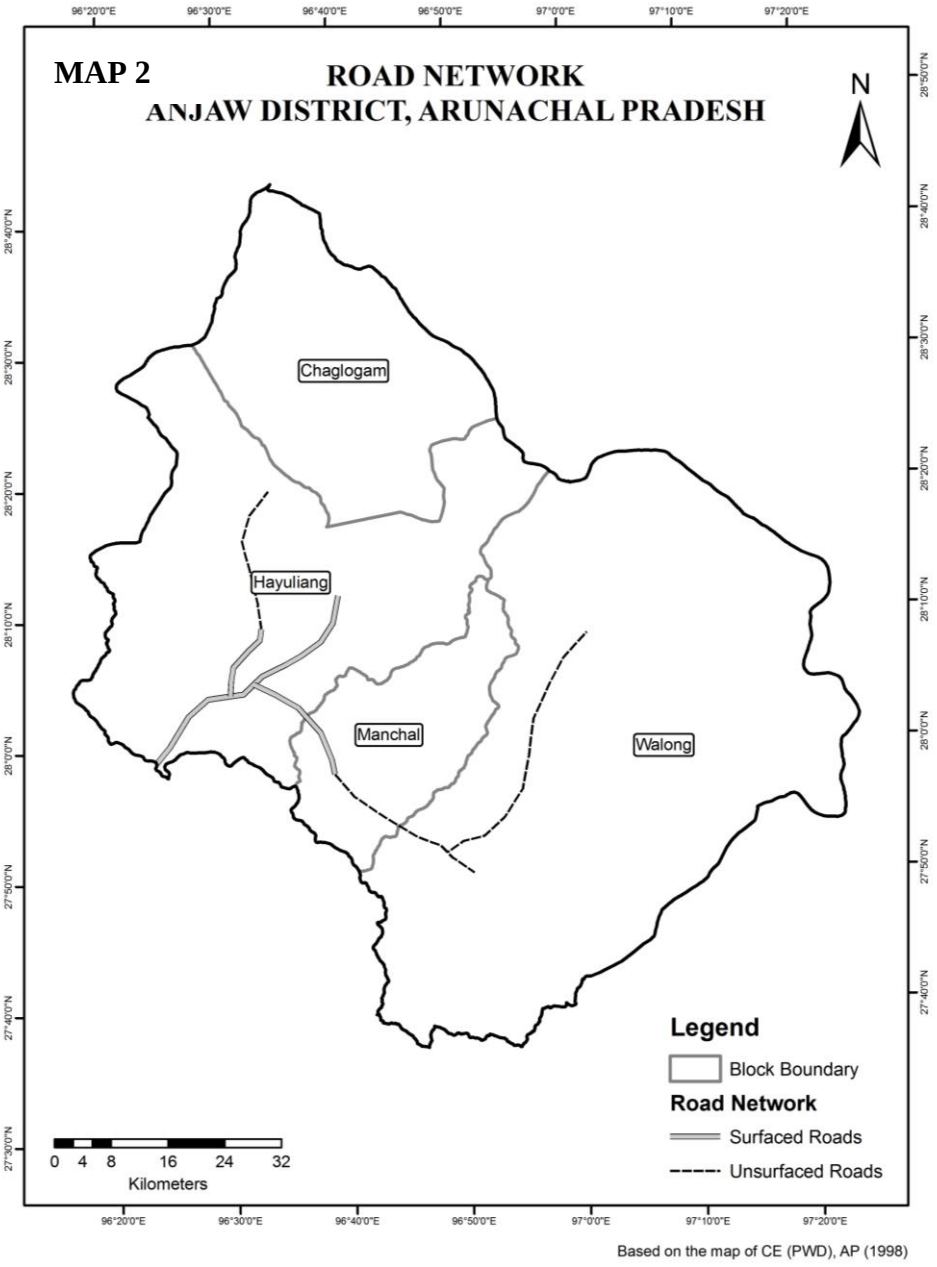


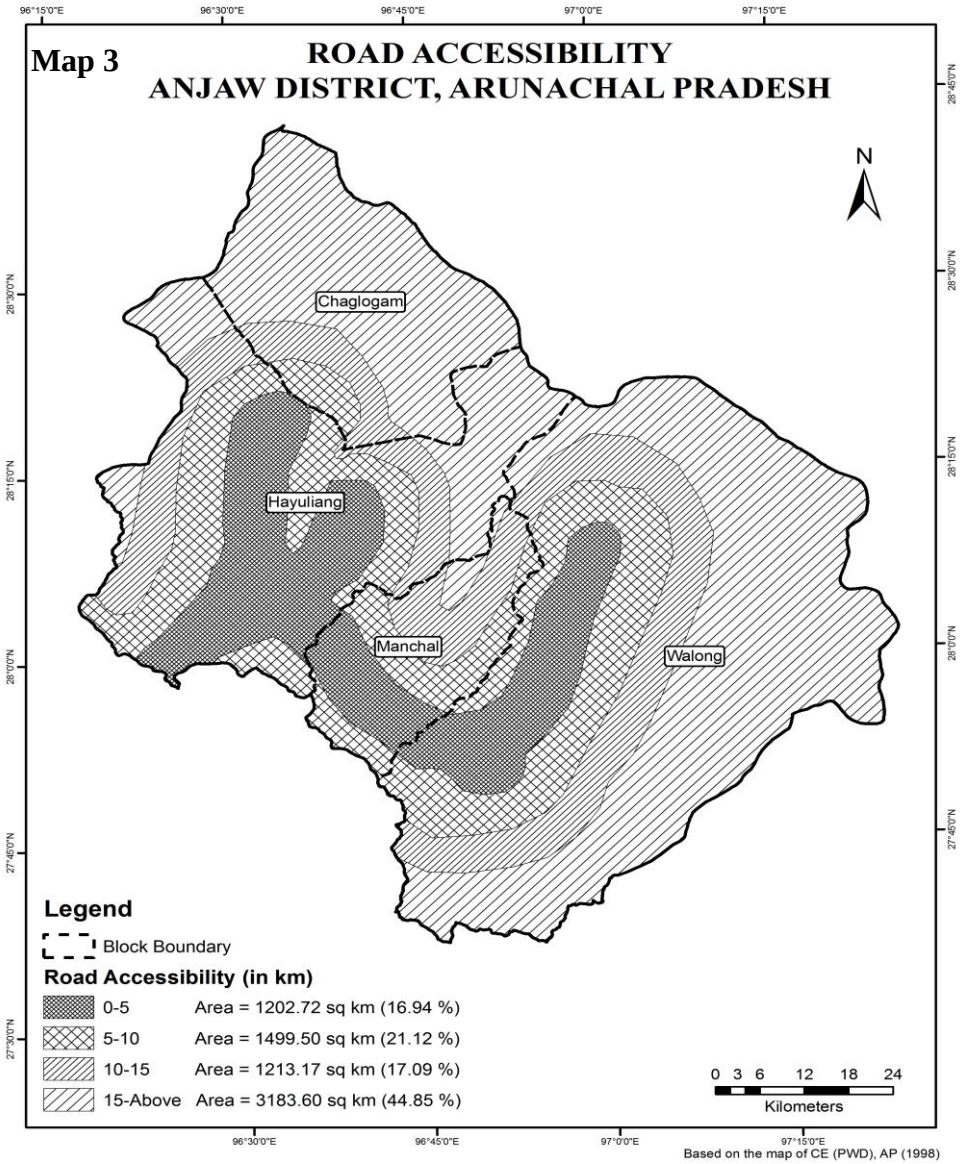
Demography

The district according to 2011 census has 19898 people of which 10509 are male and 9389 female. The population is housed in 3222 households and is distributed in 266 villages. Anjaw is a complete **rural district**. Another notable phenomenon is the **Density** with mere three persons living per KM^2 area on an average in the district. (Govt. servant population in Hawai Urban, Hayuliang Bazaar not included.

Road Connectivity and Accessibility

Movement of people, goods and services takes place in the district through road network only. The district has both surfaced and un-surfaced roads with minimum coverage.





The accessibility in the district is very poor. Only 16.94% of the total area of the district has accessibility within 0-5 kms; 21% within 5-10kms; 17% within 10-15 Kms and more than 44% of the area has accessibility beyond 15kms or more. In other words, major portion of the district has poor accessibility (Map).There is no other mode of connectivity in the district. There is however helicopter services for limited purpose.

Agriculture

The annual growth in agriculture sector in the state hardly crossed the level of 1% as against the national target of 4%. The agriculture of the district is not very advanced compared to some other districts of the state. The various parameters of agriculture is discussed below which are expected to throw some light into the basic understanding of the development of the sector.

Land Use

The net area sown is only 5855.37 hectares out of the total area of the district 7098.99 sq. km.

Table-5.1: Land Use

Sl. No.	Particulars	Area in Hectare
01.	**Total geographical area**	709899
02.	Area under Forest	NA
03.	Barren & un-cultivated land	676
04.	Land put into non-agriculture uses	NA
05.	Cultivable waste	6870
06.	Permanent pastures & other grazing lands	1380
08.	Current Fallow	1424
09.	Other Fallow	2165
10.	Net Area Sown	8080
11.	Area sown more than once	1700
12.	Gross Cropped Area	9780

Table-5.2: Area under different Crops

Crops	**Area (in Hectare)**	**Production (in MT)**
Paddy	3561	3935
Wheat	13	19.5
Maize	3595	3885
Millet	1381	1105
Pulses	64	155
Oilseed	139	139
Potato	120	1022
Ginger	120	979
Turmeric	18	40
Chilly	24	96
Vegetables	679	2127

Theme – III Expanding Agriculture and Allied Sector

- PROPOSALS FOR DOUBLING FARMER INCOME BY 2021-22

In addition to the existing programmes State and CSS it is required to propose following proposals and these activities shall double the farmers income by 2021-22.

1. Double cropping
2. Infrastructure Development
3. Agro – Processing Units
4. Rural link Roads.
5. Cultivation of medicinal plants.
6. Watershed projects / Integrated Wasteland Development Projects.
7. Agro-Ecotourism

In Anjaw District Agro-Ecotourism is a responsible travel to natural areas which conserves the environment and sustains well being of the local people. The undisturbed and uncontaminated ecosystem of Anjaw is its greatest strength to be a prominent ecotourism hub.

Numerous big and small rivers tropical to temperate and Alpine forests, snow clad mountains and vast organic Large Cardamom orchards and the atmosphere as a whole is absolutely pollution free.

Abundance of flora and fauna, rich cultural heritage, honest and hospitable – hardworking populace of the district are few other inherent advantages. For research and studies there is ample scope for plant breeding and genetics.

Creation of tourist infrastructure in the farms of Walong is a part of agro eco tourism which shall add income to unemployed youths also.

Schemes to include commercial cultivation of off season vegetables which has a tremendous scope in this District Economic benefit of vegetable cultivation is well understood in the District.

Cultivation of famous king chilly (Bhoot Jolokia) commercially is another arena which should be harnessed and proper schemes to be taken of.

Turmeric and sugarcane cultivation is another promising crop and requires little skill upgradation of the growers in curing, processing and value addition and shall result in enhancement of its area and production.

Table-1: Total physical and Financial Dimension of *Income Generating Activities* for Five Years (2017-18 to 2021-22) for doubling farmer income by 2021-22

Sl. No.	Activities	2017-18 to 2021-22	2017-18	2018-19	2019-20	2020-21	2021-22	Total Unit	Unit cost (in lakh)	Total Cost (in Lakh)
		No. of Blocks to be covered		No. of units	No. of units	No. of units				
1	2	3		4	5	6		7	8	9
	Agriculture									
1	Ginger Cultivation	4 blocks	2 unit	4 units	4 units	4 units	4 unit	18 unit	0.50	9.0
2	Potato Cultivation	4 blocks	5 unit	5 unit	5 unit	5 unit	5 unit	25 unit	0.71	17.75
3	Wheat Cultivation	1 blocks	1 unit	1 unit	1 unit	1 unit	1 unit	5 unit	0.26	1.3
4	Paddy Cultivation	4 blocks	5 unit	5 unit	5 unit	5 unit	5 unit	25 unit	0.26	1.3
5	Tea Cultivation	2 Blocks	1 unit	1 unit	1 unit	1 unit	1 unit	5 unit	0.91	4.55
6	Mishmi Dal	4 blocks	2 unit	2 unit	2 unit	2 unit	2 unit	10 unit	0.40	4.0
7	Turmeric	2 Blocks	1 unit	1 unit	1 unit	1 unit	1 unit	5 unit	1.0	5.0
8	King Chilly	4 blocks	2 unit	2 unit	2 units	2 units	2 unit	10 unit	1.0	10.0
9	Sugarcane	4 blocks	2 unit	2 unit	2 unit	2 unit	2 unit	10 unit	1.0	10.0
10	Medicinal Plant	4 blocks	2 unit	2 unit	2 unit	2 unit	2 unit	10 unit	1.0	10.0
11	Ground nut	4 blocks	1 unit	1 unit	1 unit	1 unit	1 unit	5 unit	1.0	5.0
12	Off season and seasonal vegetable cultivation	4 blocks	20 unit	20 unit	20 unit	20 unit	20 unit	100 unit	0.20	20.00
	Total		**44 units**	**46 units**	**46 units**	**46 units**	**46 units**	**228 unit**		**77.90**

The above activities of agriculture are to be undertaken through various schemes of the department, viz., RKVY, NMSA, NFSM, Watershed Development Programmes etc. New areas of cultivation shall be brought in next 5 years to generate employment and income amongst the growing unemployed youths. In five years interval 100 ha of land shall be added more to cultivation to feed the growing population of the district.

Table-2: Total physical and Financial Dimension of Agri. Sector Infrastructure & Support Services (2015-16 to 2029-30)

Sl. No.	Activity	No. of Blocks to be covered	Physical Dimension			Unit Cost (in Lakh.)	Total Cost (in Lakh.)
			Unit Size/Capacity	Size / Capacity per Unit	Unit Total		
1	2	3	4	5	6	7	8
	Agriculture						
1	Agril Link Road To Fields	4	1 Km.	Km.	185	15.00	2775.00
2	Land Development	4	1 Ha.	Ha.	627	1.00	627.00
3	Agriculture Gosthi/Mandap	4	600 Sq.ft.	No.	26	7.80	202.80
4	Market Shed	4	500 Sq.ft.	No.	14	5.75	80.50
5	Mobile Van For Plant Protection	4	1 No.	No.	7	8.00	56.00
6	Agriculture Godown	4	100 MT	No.	6	8.40	50.40
7	Paddy Dehusking Machine	4	1 No.	No.	4	2.00	8.00
8	Drying Yard	4	1 No.	No.	1	5.00	5.00
9	Agriculture Farm	4	1 no.	No.	1	5.00	5.00
10	Millet Grinder	4	1 No.	No.	1	1.50	1.50
11	AFA Quarter	4	600 Sq.ft.	No.	1	7.80	7.80
12	Sugarcane Crusher	4	1 No.	No.	2	0.50	1.00
13	Tea Processing Unit	4	1 No.	No.	1	5.00	5.00
14	Vehicle For Agri Marketing(Tata 207 Di)	4	1(TATA 207 DI)	No.	1	4.50	4.50
15	Drip irrigation / minor irrigation / Water harvesting structues	4					
	Total				**877**		**3829.50**

The above agricultural sector infrastructure and support services are required to boost up the production from present level to achieve 4% growth in every 5 years to achieve agri vision 2030 of Anjaw District.

In Anjaw district the hill slope is so high that proper bench terracing by land development is not possible for agri fields of Chaglongam, Goiliang, Hayuliang, except few pockets. However, development of bench terraces has abundant scope in Hawai – Walong C.D. Blocks. Due to high torrential rain during peak season of monsoon the rate of soil loss is between 100 – 150 tonnes per hectare per year, this is around to 10 million tonnes of soil which gets lost annually in the district. This is a major hindrance in achieving the vision 2030 without proper soil conservation techniques. Therefore, activities of soil conservation

techniques are to be adopted through integrated waste land development projects and also through watershed development projects in a simultaneous pattern.

- A POLICY APPROACH FOR MISSION ORGANIC ANJAW DISTRICT - ARUNACHAL PRADESH

During the era of Green Revolution, introduction of high-yielding varieties, extension of irrigated areas, use of high analysis NPK fertilizers and increase in cropping intensity propelled India towards self-sufficiency in food production. In the process, organic manures as a source of plant nutrient declined substantially. Water logging and secondary Stalinization have been the banes associated with excess and irrational irrigation. Groundwater table declined sharply, indiscriminate use of chemical pesticides destroyed many naturally occurring effective biological control agents. An increase in resistance of insect pests to chemical pesticides has also been noticed. Health hazards associated with intensive modern agriculture, such as pesticides residues in food products and groundwater contamination are matter of concern. The occurrence of multi-nutrients deficiencies and overall decline in the productive capacity of the soil due to non judicious fertilizer use, have been widely reported. Such concerns and problems posed by modern-day agriculture gave birth to new concepts in farming, such as organic farming, natural farming, biodynamic agriculture, eco-farming etc. The essential features of such farming practices imply, i.e., back to nature.

Organic farming is gaining gradual momentum across the world. Growing awareness of health and environmental issues in agriculture has demanded production of organic food which is emerging as an attractive source of rural income generation. While trends of rising consumer demand for organics are becoming discernible, sustainability in production of crops has become the prime concern in agriculture development. As per the survey conducted by IFOAM and SOEL. Association, almost 37.2 million hectares are currently managed organically by more than 1.4 million producers worldwide. The continents with most organic land is Australia / Oceanic with almost 12.2 million ha, followed by Europe (almost 10.6 million Ha), Latin America (6.9 million Ha), Asia (3.7 million Ha), North America (2.8 million Ha), FIBL and IFOA 2013-14.

The increasing awareness about the safety and quality of foods, long term sustainability of the system and only hope for rain-fed-resource poor farmers, the organic farming has merged as an alternative system of farming which not only address the quality and sustainability concerns, but also ensure a debt free, profitable livelihood option.

Organic agriculture has grown out of the conscious efforts by inspired people to create the best possible relationship between the earth and the men. During the last two decades there has also been a significant sensitization of global community towards environmental preservation and assuring of food quality. Ardent promoters of organic farming consider that it can meet both these demands and become the means for complete development of rural areas. After almost a century of neglect, organic agriculture is now finding place in the mainstream of development and shows great promise commercially, socially and environmentally.

Organic farming has made credible advancement during the past decade. It is combined effect of farmers' efforts, and Department of Agriculture interventions and market forces that organic farming has reached a stage where it can swiftly move to occupy prominent space in agriculture.

- Developing an integrated value chain for agriculture commodities

Objectives for Organic Agriculture Development

A. To develop crop commodity specific organic value chain and address gaps in organic crop production, wild crop harvesting, organic livestock management and processing, handling and marketing of organic agricultural products through:

i) Develop crop specific organic production cluster with necessary infrastructural, technical and financial support.

ii) By facilitating partnership between Farmers and organic business : Local enterprises and / or Farmer Producer Companies based on back – to – back long term trade relations with clients in domestic and export markets.

B. To empower producers with program ownership by organizing them into FIGs with the final aim to federate into farmer producer organization / companies (FPCs).

C. To replace conventional farming system into local resource based, self sustainable high value commercial organic enterprise.

D. Developing commodity specific commercial organic value chain under integrated and concentrated approach with end-to-end facilities for production, processing, storage and marketing.

E. Development of organic parks/zones with facilities for collection, aggregation, value addition, processing, storage and market-linkages for specific commodities requiring capital intensive technology.

F. Develop NER products as brands/labels through brand building and facilitating stronger marketing access under the ownership of growers' organization/companies (FPCs).

G. Creating state specific lead agency (Organic Commodity Board or Organic Mission) for coordinating, monitoring, supporting and financing the development and operationalization of entire value chain.

- **FLOW CHART FOR ORGANIZING FARM CLUSTER – FARMER'S PRODUCERS ORGANIZATION.**

Action Plan at a Glance

⇩

Deployment of Manpower

⇩

Trainer's (Project Staff) Training

⇩

Baseline Survey and Identification of Area, Crops and Farmers

⇩

Appraisal Training and Registration of Farmers

⇩

Formation of Clusters of 50 Ha each and FIGs

⇩

Formation of Internal Control System (ICS)

⇩

Formation of Farmer Producer Companies from adjoining cluster in the geographical vicinity

⇩

Soil Sampling and Testing

⇩

Awareness on Organic Standards

⇩

(Farmers' Organized Training on all aspects of Organic Farming, Certification, FPCs formation and Marketing)

⇩

Distribution of Formats/Manuals / Literature

⇩

Verification of Farmers Land and Crops

⇩

Trainer' (Project Staff) Refresher Trainings

⇩

Selection of Planting Material and Improved Seeds

⇩

Creation of infrastructure facilities for On-farm Input Production and Management

⇩

Distribution of bio-fertilizers and Bio-pesticides among the registered farmers / FIGs

⇩

Pest and Diseases Management Strategies

⇩

Farmers' Refresher Training through Cluster Meetings and Demonstration on On-Farm Input Preparations

⇩

Establishing Traceability System and On-line Monitoring

⇩

Internal Inspections by the ICS twice annually

⇩

Risk Assessment & its Management by ICS

⇩

Maintaining on line Traceability farm data uploading of APEDA "tracenet"

⇩

Facilitation of External Inspections by Certification agency

⇩

Training on Post Harvest handling & Management

⇩

Training on Product Identity, Aggregation, Processing, Transport, Storage, Packing & Value Addition

⇩

Facilitating FPCs in Creation of facilities for Aggregation of Organic Produce, Processing, Transport, Storage, Packaging, and Value Addition

⇩

Registration of Farmer Producer Companies (FPOs/FPCs)/Societies and linking them with Marketing Channels both Domestic and Exporters

CONCLAVE ON RE-SHAPING THE DEVELOPMENT DISCOURSE OF ANUNACHAL PRADESH

THEME – III : EXPANDING AGRICULTURE AND ALLIED SECTORS

Submitted By:

Sri. S. Bhattacharjee, ADO
C/o Deputy Director,
Agriculture
Anjaw District : Hawai
Camp-Office Khupa
P.O. Hayuliang, 792104
Email id :-
ddaanjaw2017@gmail.com
M. No. 9402015586