

Animal Resources:

Background:

The State Animal Resources Development Department has been implementing various socio-economic programmes to create gainful employment opportunities in the rural areas through various developmental schemes with the following objectives-

- i) To provide health coverage to all the livestock and poultry of any breed in respect of contagious and non-contagious diseases.

- ii) To improve livestock generating production viz; Milk, Egg and Meat as well as to improve socio-economic status of the farmers and enhance contribution to the Gross State Domestic Product (GSDP).

To achieve the goal, the State Animal Resources Development Department has been providing animal health care services and breed improvement facilities till 2014-15 through 16 -Veterinary Hospitals, 60 - Dispensaries, 11 - Artificial Insemination Centres, 2 - ICDP Centre, 4 - Frozen Semen Banks, 428 - Veterinary Sub-Centres, 4 - Veterinary Medicine Stores, 4 -Disease Investigation Laboratories, 5- Hatcheries, 4 - Poultry Breeding Farms, 10 - Pig breeding Farms, 2 - Goat breeding Farms, 2 - Duck Farms, 1 - Cattle Farm, 2 - Rabbit Farms and 7 - Fodder Multiplication Farms etc.

Animal husbandry, poultry and piggery provide tremendous opportunities for poor and rural economy of the State and also supports small and marginal farmers both economically and nutritionally. It also plays an important role in employment generation and augmentation of rural income. Despite many constraints, Tripura has made significant progress in the development of animal resources, particularly in egg and meat production.

The increased emphasis has resulted in the growth of animal and bird population and economic value of animal wealth and its products over the year. The estimated livestock population and its unit cost during 2014-15 is as under:

Sl. No.	Estimated livestock population, 2014 -15		Unit cost (in Rs.)
	CB (Male)	Estimated - 2014-15	
a	Adult	15655	21,000
b	Young	19112	12,000
	CB (Female)		
c	Adult	57200	32,000
d	Young	48601	23,000
	Total (a+b+c+d)	140568	
	ND (Male)		
e	Adult	219111	15,000
f	Young	104146	8,000
	ND (Female)		
g	Adult	303924	20,000
h	Young	225761	15,000
	Total (e+f+g+h)	852942	
	Buffalo (Male)		
i	Adult	2894	15,000
j	Young	1487	9,000
	Buffalo (Female)		
k	Adult	4089	30000
l	Young	2559	15000
	Total (i+j+k+l)	11029	
m	Pig (CB + ND)	395162	8,000
n	Sheep	3255	1,500
o	Goat	665905	1,500
p	Poultry (Fowl)	4326483	200
q	Duck	965264	200
Livestock Asset Value			

The following Table depicts the major livestock sector produces in the State during 2014-15.

Sl. No	Item	Quantity
1	Milk ,in Mt.	141430.67
2	Meat (chevon) ,in Mt.	1550.61
3	Meat Pig ,in Mt.	10747.65
4	Meat (broiler), in Mt.	20063.29
5	Meat (deshi fowl & duck), in Mt.	2397.39
6	Eggs (Hen), in Nos.	153143774

7	Eggs (Duck), in Nos.	44804942
8	Skin (sheep & goat), in Nos.	384142

Strategies:

A) MILK SECTOR :-

- i) Increasing the number of cross bred population through intensification of Artificial Insemination (AI).
- ii) Setting up of credit linked dairy demonstration unit.
- iii) Organization of awareness camp.
- iv) Mass de-worming and supply of mineral mixture.
- v) Popularization of castration.
- vi) Incentivizing "Door Step AI Workers".
- vii) Conducting Milk yield competitions and calf rally.
- viii) Supply of calf growth meal (CGM).
- ix) Fertility camp for improving conception rate.
- x) Training of private AI workers and provision of logistic support.
- xi) Supply of breeding bulls (Indian dairy breed/cross bred) in ADC area for coverage through natural service.
- xii) Induction of high yielding variety of milch cattle from out side state.
- xiii) Development of perennial fodder blocks including FRA through convergence of fund under MGNREGA.
- xiv) Cultivation of Azolla as animal feed supplement through convergence with MGNREGA.
- xv) Capacity building of farmers on managerial aspect of milch cattle.
- xvi) Development of pasture land through convergence of fund under MGNREGA.
- xvii) Growing of fodder crops (oat, signal & stylo) in agricultural plots during intercropping period after amon paddy.

B) EGG SECTOR :-

- i) Establishment of Block Level Brooder Houses (BLBHs) and satellite hatcheries.
- ii) Massive promotion of back yard poultry including patta-holders under FRA.

C) MEAT SECTOR :-

- i) Setting up of beneficiary oriented piggery demonstration unit for multiplication including FRA.
- ii) Setting up of beneficiary oriented pig breeding unit for patta holders under FRA.
- iii) Tuber (Tapioca) cultivation through convergence of fund under MGREGA in FRA and other areas.
- iv) Improving productivity of goats under conventional small holder/pastoral system.

Impact of perspective plan of animal husbandary on meat, egg & milk :

The per capita availability of meat which has increased during 2002-03 to 2014-15 from 2.26 to 9.08 Kg/year. In respect of egg and milk which were grown over in the same period from 31 to 52 nos./year and 67.51 to 101.03 grams/day, respectively.

Year		Meat (Kg/year)	Egg (Nos./year)	Milk (Gm/Day)
2001-02 i.e. Before 10 th Plan (Also before the onset of Perspective Plan)		2.26	30	67.93
10 th Plan period	2002-03	2.31	31	67.51
	2003-04	2.54	31	68.59
	2004-05	2.66	32	69.89
	2005-06	3.57	33	70.03
	2006-07	3.65	35	70.30
11 th Plan period	2007-08	4.01	38	71.23
	2008-09	5.38	39	73.41
	2009-10	5.82	40	76.08
	2010-11	6.38	43	78.53
	2011-12	6.81	45	82.32
12 th Plan period	2012-13	8.53	42	86.82
	2013-14	8.77	47	94.01
	2014-15	9.08	52	101.03

Approach has been taken in 12th five year plan to ensure food security inclusive of animal origin food for sustainable up-liftment of rural economy by creation of avenues for generation of self employment and additional income and to bridge the gap between supply and demand of animal origin food through augmentation of production and productivity of livestock and birds,

Accordingly, year wise Target of 12th Plan for the period - 2012-13 to 2016-17, has been fixed, based on the reality.

Target of 12th Plan :

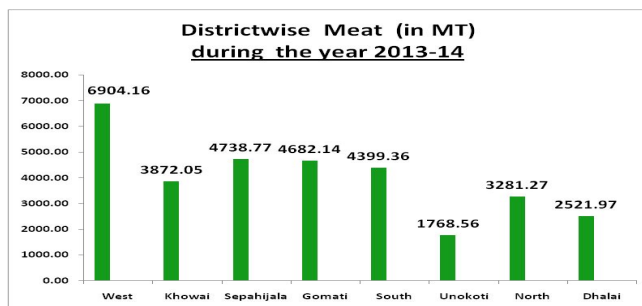
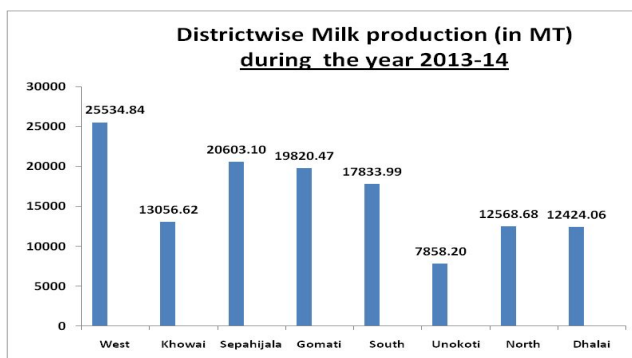
S.L No	Parameters	Unit	Achievement		Target
			10 th Plan (2006-07)	11 th Plan (2011-12)	12 th Plan (2016-17)
1	2	3	4	5	6
01	Production of meat	MT	14098	25000	39503
02	Production of milk	MT	91312	110300	167965
03	Production of egg	crore	13.2	16.50	26.58
04	Per capita availability of meat	Kg/Year	3.65	6.81	10.00
05	Per capita availability of milk	Gm/day	70.30	82.32	116.50

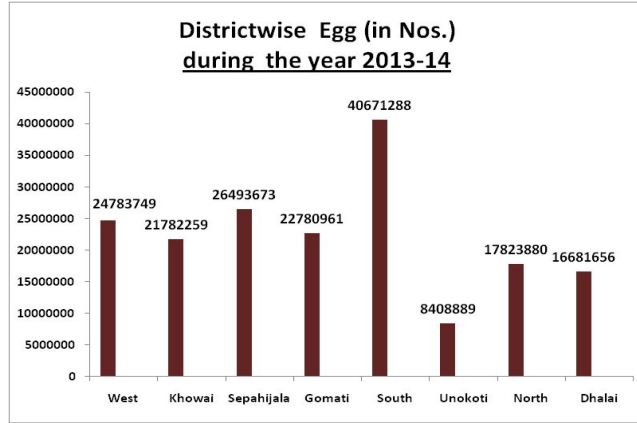
06	Per capita availability of egg	Nos./year	35	45	67
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The following Table shows the districtwise production data of milk, meat and egg based on the integrated sample survey report for 2014-15.

S.L No	Name of the District	Milk. (in MT)	Egg. (in nos.)	Meat (in MT)
1	West District	28019.83	27575770	7288.64
2	Khowai District	14380.26	24338485	4129.37
3	Sepahijala District	22576.41	29229182	5021.85
4	Gomati District	21503.92	25149504	4930.49
5	South District	19268.14	44029019	4606.52
6	Unokoti District	8715.71	9309258	1921.66
7	North District	13585.07	19858283	3136.86
8	Dhalai District	13381.33	18459215	3780.35
Total, 2014-15:		141430.67	197948716	34815.74

The per capita availability of local milk is about 101.03 gms. per day and egg is 52 number in a year during 2014 - 15.





ACHIEVEMENTS IN 2014-15:

- **Veterinary services and animal health:**

This is a priority scheme of the department. Veterinary services are rendered through a network of veterinary hospitals, veterinary dispensaries, veterinary sub-centres, Disease Investigation Laboratories and also by organizing animal health camps throughout the state. Under this scheme, department also undertakes opening of new centers/ veterinary dispensary repairing, remodeling, extension and up taking of new constructions for field level veterinary institutions with a view to maintain proper working condition and standard for optimisation of hygienic production of milk, meat and egg. Another important task undertaken under this scheme is works related with control of zoonoses including maintenance of Rapid Response Team (RRT) especially after emergence of 'bird flu' in the country. Any lapse in such work may endanger survivability of both animal and human species.

SL NO	Particulars.	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
		3	4	5	6	7	8
01	Animal Health Coverage (Animal + per 100 birds is considered as on treatment)	5,04,316	5,65,943	5,88,732	571079	638180	644847

02	Vaccination other than F.M.D. (Nos)	33,93,819	91,52,095	50,41,435	5032104	6140788	5915491
03	Vaccination against F.M.D. (Nos)	4,24,012	6,60,939	6,12,679	714015	554228	561628

- **Cattle and buffalo development:**

The main objective of this scheme is to augment milk production of the state through introduction of improved germplasm into the indigenous genetic pool of cattle by means of artificial insemination with frozen semen technology. The ultimate target group of this scheme is all the breedable cattle of the state.

SL. NO	Particulars.						
		2009 - 10	2010-11	2011-12	2012-13	2013-14	2014 - 15
1	2	3	4	5	6	7	8
01	Animal castrated.	11,832	12,102	11,139	9010	10,324	10,157
02	Artificial insemination	1,05,568	1,19,652	1,25,280	128749	1,43,692	1,54,780
03	Calf born (Nos)	37,199	44,199	48,146	47413	53,235	59,734

- **Poultry development:**

The primary objective of the scheme is to augment poultry/duck egg and meat production, including broiler meat to make the State self sufficient. The Department maintains poultry and duck breeding farms for production and supply of quality chicks and ducklings of LIT variety. The major obstacle of poultry industry in Tripura is the cost of poultry feed. This scheme entails scope of huge employment generation for the youths of both urban and rural masses and especially to the weaker and women sections of the State. Therefore this is a high priority scheme of the State.

SL. No	Particulars.						
		2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
1	2	4	5	6	7	8	9
i)	Production of hen's egg (nos)	5,50,685	8,42,138	3,94,438	69645	879705	11,26,281
ii)	Production of chicks (nos)	1,46,599	3,89,639	1,75,650	31455	317005	4,51,883
iii)	Distribution of chicks (nos)	1,35,027	3,85,503	1,70,687	187221	306687	4,23,468
iv)	Production of K.C. duck eggs	3,68,944	2,52,669	10,099	50209	117659	123381
v)	Production of vigova super M eggs (nos)	52,323	61,354	30,414	6921	2930	3165
vi)	Production of white pekin eggs (nos)	Not in stock	Not in stock	Not in stock	Not in stock	Not in stock	9202
vii)	Production of K.C. duckling (nos)	59,311	57,239	735	10850	17241	22,719

viii)	Production of vigova super - M duckling	7,209	4,580	755	52	29	0	
ix)	Production of white pekin duckling	0	0	0	0	0	945	
x)	Distribution of duckling (nos)	K.C.	46151	28883	270	3183	11671	15893
		Vigova super - M	6756	1792	0	0	0	0
		White pekin	0	0	0	0	0	157

- **Goat development:**

The basic objective of the scheme is to preserve and upgrade the unique character of black bengal goat of the state through selective breeding and scientific management. It is also planned to promote goat rearing by the forest dwellers through beneficiary oriented scheme.

SL. NO	Particulars.						
		2009 - 10	2010-11	2011-12	2012-13	2013-14	2014-15
1	2	3	4	5	6	7	8
i)	Production of kids (nos) (goat)	222	253	172	168	133	171

- **Piggery development :**

Pig rearing is now the most popular economic activity in the state under animal husbandary sector. Now it is the endeavor of the State to make the sector economically more viable through enhancing the productivity and value addition for ensuring sustainability. It is also planned to promote pig rearing by the forest dwellers through beneficiary oriented scheme.

SL. NO	Particulars.							
		2008 - 09	2009 - 10	2010-11	2011-12	2012-13	2013-14	2014-15
1	2	3	4	5	6	7	8	9
i)	Production of piglets (in nos)	4661	4430	4722	4169	4721	4281	4870
ii)	Distribution of piglets (in nos)	3403	3820	3727	3283	3429	3250	3898

- **Other livestock development :**

The objective of the scheme is to popularize rabbit rearing in rural areas for production of non-conventional meat of rabbit as an alternative source for less cholesterol containing meat.

SL. NO	Particulars.						
		2009 - 10	2010-11	2011-12	2012-13	2013-14	2014 - 15
1	2	4	5	6	7	8	4

i)	Production of milk from R.K. Nagar F.C. (Kg)	63,264	60,839	65,508	92,008	1,15,111	1,07,033
ii)	Production of rabbit kid (nos)	3,496	2,321	1,184	1541	840	3,496

Assistance to Co-operative Societies:

The main target of the scheme is to re-vitalize milk cooperative sectors for processing and distribution of milk and also to make proper arrangement towards proper milk marketing system with a view to assure fetching justified remuneration on selling of milk by the actual producers.

The following were the achievement of GCMPUL in 2014-15.

Diary development

SL. No.	Name of the Item	Unit	Achievement, 2013-14
1	2	3	4
1	Procurement of Milk from:-		
i)	Milk Producers Co-Op. Societies	Kg	1575345
	Government Farm	Kg	921992
	Marketing of milk:	Lts.	3816446
3	Ghee sold	Kg	1297.
4.	Paneer sold	Kg	12240
5	Ice cream sold	Lts.	1888
6	Misty-dui sold	Kg	17301
7	New society organized	Nos.	4
8	MPCS function	Nos.	9
9	Farmers members	Nos.	5867

Source: - Animal Resource Development Department, Tripura.

Fisheries:

The role played by the State Fisheries Department of Tripura towards meeting the food security of State's population is significant, as fish is an important constituent of daily diet of more than 95 percent of its populace. The per capita consumption of fish in the State is reported to be highest among the Inland States of the country. The State made considerable achievements with

regard to carp seed production. It is rather surplus in fish seed production as the present production is about 329.40 million against a requirement of 293.78 million at the end of 2014-15. This is the first state in the North East to produce seed of fresh water prawn in artificial sea water on a commercial scale. However, the State is yet to achieve the level of fish production to fulfill the consumption requirement of fish for its populace.

Progress in fishery sector during 2014-15:

Encouraging results with regard to fish culture activities could be obtained in the State, particularly in the rural areas due to implementation of the plan activities during 2014-15. Besides, a class of progressive farmers have been developed in the State who is obtaining fish productions of even above 4-5 tons per hec. The total fish production have been raised to 64780 MT in 2014-15. The per capita availability of fish from local production has also increased to 17.50 kg in 2014-15 against 16.81 kg in 2013-14. Moreover, about 711.98 hec additional water bodies including big water bodies have been brought under scientific fish culture and about 634.60 hec new water area also created during 2013-14. Greater emphasis is now being laid on high-tech fish culture by increased use of aerator in fish culture ponds to increase per hec productivity.

The district wise water area and production of fish during 2013-2014 (provisional) is given in the following table:

Sl. No	District	Culturable Water area (in hac)	Inland fish excluding non-subsistence fishermen fish (In M.T)	Catch of fish by non-professional (subsistence fish) (In M.T)	Total (4+5) (In M.T)
1	2	3	4	5	6
1	West	2580.17	5939	810	6749
2	Shipaijala	3472.48	7971	1088	9059
3	Khowai	2916.67	7520	977	8497
4	South	3129.65	6740	885	7625

5	Gomati	4703.56	9335	1300	10635
6	Dhalai	4113.99	8600	1107	9707
7	North	3075.10	6280	776	7056
8	Unakoti	1981.68	4745	707	5452
	TOTAL :-	25973.30	57130	7650	64780

Source: Fisheries Department, Tripura.

The important schemes implemented during 2014-15 and its achievements are as follows:

- **Production of quality fish seed:**

In order to produce quality major carp fish seed in captivity , so far 12 FRP hatcheries have been brought from CIFA, ICAR, Kausalyaganga, Odissa and installed in 11 - private sector farms and 1 in Government farm. Besides, 2-magur hatcheries and 3- pabda hatcheries are under production of high value seed of magur and pabda.

- **Establishment of input storage centre:**

To facilitate storage and delivery of various fishery inputs like lime, fish feed etc. to farmers, during 2014-15, 35 - Input Storage Centres have been constructed , one in each block ,and works of another 10 Input Storage Centre are under progress.

- **Pisciculture assistance for better production of fish:**

As a priority programme,dissemination of different scientific fish culture technologies are being extended to the farmers , in the form of demonstration on feed based intensive fish culture., ‘semi –intensive fish culture’ , fish culture in ‘small’ and “non perennial” water bodies and feed and seed support etc. Under this programme, benefit extended to 5978 farmers during 2014-15 .

- **Popularisation of prawn culture among the farmers:**

Emphasis has also been given on popularizing prawn farming in the State due to its high market demand during 2014-15. Towards production of prawn juveniles all the available 7-hatcheries in the State have been utilized on regular basis for production of prawn seeds. In the year 2014-15, 8.82 lakhs prawn seeds have been produced in the Government sector and supplied to the farmers of remote areas of the State for cultivation.

- **Intensification on production of other alternative species in aquaculture:**

Towards intensification on production and culture of alternative species in aquaculture, about 5700 pabda seed , 2100 chitala (*N.chitala*) seeds , 3000 sorpunti (*Puntius sarana*) and 12074 ornamental fishes have been produced in the Government hatcheries in experimental basis and distributed among the farmers for its culture.

- **Introduction of cage culture in dumbur:**

For enhancing fish production in open water bodies specially at Dumbur reservoir a new technology the “cage culture” has been introduced and side by side ranching of 26.25 lakhs big size fingerlings have been stocked in open water bodies during 2014-15 including other rivers/rivulets .

Involvement of Co-operative Societies and SHGs in fishery sub-sector:

There are 143-Fishermen Co-operative societies including 1-Apex Co-operative societies associated with fisheries activity. The State Fishery Department is providing technical and financial supports to the less privileged societies to promote the growth of fish production as well as better income. During 2014 -15, 21 Fishermen Co-operative societies have been assisted for fish production. Besides, about 260.50 hac. water areas of SHGs have also been encouraged through basic inputs supply and required training in scientific pisciculture.