# TECHNICAL GUIDELINES TO STATES FOR IMPLEMENTATION OF VARIOUS COMPONENTS

**OF** 

#### **CENTRALLY SPONSORED SCHEME**

"LIVESTOCK HEALTH & DISEASE CONTROL" (LH & DC)

GOVERNMENT OF INDIA MINISTRY OF AGRICULTURE DEPARTMENT OF ANIMAL HUSBANDRY, DAIRYING & FISHERIES Livestock sector has immense potential for growth in India. Livestock contribute to the livelihoods of the poor often in ways that cash, brick and mortar cannot. It offers them employment and a definite source of income on which they depend for their livelihood. The biggest impediment to growth of this sector is the large-scale prevalence of diseases like Foot and Mouth Disease (FMD), Peste des Petits Ruminants (PPR), Brucellosis, Anthrax, Hemorrhagic Septicemia (HS), Black Quarter (BQ), Classical Swine Fever (CSF), Ranikhet Disease (RD), Avian Influenza (AI) etc., which result in both morbidity and mortality and consequent production losses and adversely affect the animal productivity. These include direct losses due to mortality, reduced production in terms of milk, meat, wool, hide and skins, as well as indirect loss due to abortions, subsequent infertility, sterility and deterioration of semen quality. Presence of diseases deters domestic and foreign investment in livestock sector. These not only wreak havoc on the existing stock but also limit international trade.

2. In order to tackle the issues of livestock Health in a better way, the Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Government of India is implementing a Centrally Sponsored Scheme called 'Livestock Health & Disease Control (LH & DC)' during the 12th Plan with a total project cost of Rs.3114.00 crore. This is an on-going scheme of the past Plan periods (10th and 11th Plan) with some modification/addition and alterations. It has been decided that names of the disease control programmes of PPR, Brucellosis and Classical Swine Fever will be similar to Foot and Mouth Disease Control Programme (FMD-CP) and have been changed accordingly. The name of NPRE component has also been changed. The Scheme 'Livestock Health and Disease Control (LH&DC)' will have following components:

#### i. Assistance to States for Control of Animal Diseases (ASCAD)

Funding Pattern: 75:25 Centre: State except NE states where it will be 90:10 Centre: State; 100 % central assistance to UTs.

ii. National Project on Rinderpest Surveillance and Monitoring (NPRSM)

Funding Pattern: 100 % central assistance.

iii. Professional Efficiency Development (PED)

Funding Pattern: 50:50 Centre: State; 100 % central assistance to VCI and UTs

iv Foot and Mouth Disease Control Programme (FMD-CP)

Funding Pattern: 100 % central assistance.

v. National Animal Disease Reporting System (NADRS)

Funding Pattern: 100 % central assistance.

vi. Peste des Petits Ruminants Control Programme (PPR-CP) Funding Pattern: 100 % central assistance

### vii. Establishment and strengthening of existing Veterinary Hospitals and Dispensaries (ESVHD) –

Funding Pattern: 75:25 Centre: State except NE states where it will be 90:10 Centre: State; 100 % central assistance to UTs.

#### viii. Brucellosis Control Programme (Brucellosis-CP)

Funding Pattern: 100 % central assistance.

#### ix Classical Swine Fever Control Programme (CSF-CP)

Funding Pattern: 100 % central assistance.

During the 12th Five Year Plan, for control of livestock diseases, the strategy will be to extend Foot and Mouth Disease Control Programme to all the districts/ states in a phased manner, extending PPR Control Programme to all the remaining states, extending the scope of Brucellosis control programme, strengthening of disease surveillance, state biological production units to comply Good Manufacturing Practices (GMP), disease diagnostic laboratories to comply Good Laboratory Practices (GLP), implementation of Classical Swine Fever Control Programme and ensuring prompt disease reporting to Central Monitoring Unit under National Animal Disease Reporting System (NADRS). Further, the States would have a strategic vaccination plan taking into account susceptibility and vulnerability of different areas to different diseases including canine rabies. The funding pattern under ASCAD in respect of NE states has been changed, where it will be 90:10 centre: state sharing basis. New activity viz: Endo-parasitic control in cattle and buffaloes under ASCAD has been included. Provision of mobile veterinary clinics has also been made under the ESVHD component. A new component namely; 'Classical Swine Fever Control Programme (CSF-CP)' has been included with 100 % central assistance.

#### Technical details and component-wise guidelines to states:

#### (i) Assistance to States for Control of Animal Diseases (ASCAD) -

Under this component, assistance is provided to State/Union Territory Governments for control of economically important and zoonotic diseases of livestock and poultry through immunization, strengthening of existing State Veterinary Biological Production Units & State Disease Diagnostic Laboratories, for holding of workshops/seminars & training of Veterinarians and Para-veterinarians. The programme is being implemented on 75:25 sharing basis between the centre and the states except in North-Eastern states where the

funding will now be on 90:10 centre: state sharing basis. However, 100% assistance will be provided for conducting training and holding the seminars/workshops. Under immunization programme, funds will also be provided for vaccination against canine rabies. Under parasitic control programme, funds will be provided to control endoparasites in cattle and buffaloes (preferably where intensive vaccination programmes are being carried out). States will have to submit the Annual Action Plans for using anthelmintics (preferably broad spectrum anthelmintics) depending upon the prevailing parasite profile (Nematode, Trematode and Cestode) in the concerned state. The State Vaccine Production Units will be strengthened to make them GMP compliant with 75:25 central:State sharing basis subject to a maximum of Rs. 10.00 crores as central share. The states will have to submit the action plan with Detailed Project Report (DPR) for assistance under this activity. State Disease Diagnostic Laboratories will also be strengthened to make them GLP compliant. In the first phase, 23 BSL 2 laboratories set up under World Bank Project and 32 ELISA laboratories setup under NPRE Scheme will be strengthened for ISO certification and GLP compliant. ASCAD component would also strengthen the existing surveillance and control measures for Avian Influenza. States are at liberty to ask for the funds for vaccination as per the disease scenario of livestock & poultry in the state/region. Items-wise details under ASCAD in 12<sup>th</sup> Plan are indicated at Annexure I.

#### (ii) National Project on Rinderpest Surveillance and Monitoring (NPRSM)

This component has been renamed from the erstwhile National Project on Rinderpest Eradication (NPRE). India has been declared Rinderpest and Contagious Bovine Pleuro-Pneumonia (CBPP) infection free country by the OIE in 2006 and 2007 respectively. Since Rinderpest has been eradicated globally, therefore, surveillance of the disease will be dispensed with. However, it is important that country's freedom status against CBPP is maintained as per OIE requirement. Under the programme, the States & Union Territory Governments are required to carry out physical surveillance through village, stock route & institutional searches to maintain the freedom status of CBPP and to undertake surveillance of other animal diseases in the country on routine basis. Funds will be provided to States/UTs, for undertaking ongoing activities of strengthening veterinary services, surveillance of various animal diseases including syndromic diseases with more focus on diseases like Contagious Bovine Pleuro-pneumonia (CBPP), Bovine Spongiform Encephalopathy (BSE) etc. for which freedom status has to be maintained. Funds provided will be utilized on travel, POL etc. to carry out surveillance accordingly. Items-

#### (iii) Professional Efficiency Development (PED) -

The component envisages establishing of Veterinary Council of India at the Centre and the State Veterinary Councils in those states, which adopted the Indian Veterinary Council Act, 1984. For improvement in the efficiency of Veterinary professionals, Veterinary Council of India and states are mandated to impart training to veterinarians on the latest technical knowledge by way of Continuing Veterinary Education (CVE). This component is proposed to be continued in the 12th Plan as per the existing norms with modification that the training to registered veterinarians can also be imparted through Veterinary /Agriculture Universities in case the VCI or State veterinary councils fail to implementing CVE. Grants-in-aid to Veterinary Council of India (VCI)/State Veterinary Councils/State Veterinary/Agriculture Universities for running Continuing Veterinary Education (CVE) programme will also be provided.

#### (iv) Foot and Mouth Disease Control Programme (FMD-CP)

To prevent economic losses due to Foot and Mouth Disease and to develop herd immunity in cloven-footed animals, a location specific programme called 'Foot and Mouth Disease Control Programme (FMD-CP)' is currently being implemented in 221 specified districts of the states namely; Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, Maharashtra, Goa, Gujarat, Punjab, Haryana, Delhi, Andaman & Nicobar Islands, Dadra & Nagar Haveli, Daman & Diu, Lakshadweep, Puducherry and 16 districts in Uttar Pradesh (bifurcated to 20). 100% central funding is being provided on cost of vaccine, maintenance of cold chain and other logistic support to undertake vaccination. The State Governments provide for other infrastructure and manpower to undertake FMD vaccination in systematic manner which is essential for its effective control.

Current activities of vaccinating cattle and buffaloes in 221 districts would be expanded to cover all the 33 districts of Rajasthan and remaining 55 districts of Uttar Pradesh immediately to provide a geographically contiguous area and yield desired results for the creation of FMD-free zones as per OIE guidelines. It is proposed to gradually take up larger, uninterrupted and contiguous areas for FMD Control Programme so as to eventually cover the entire country, in a phased manner depending on the availability of

funds and vaccines. Other susceptible livestock will be covered as per recommendations of technical committee.

The major activities of the intensive programme component would be to vaccinate all the eligible cattle and buffaloes at six monthly interval, Publicity and Mass Awareness Campaign, including orientation of the State functionaries for implementation of the scheme, identification of the target animals in the selected districts, Sero-surveillance/monitoring of animal population on random basis, mass vaccination, procurement of cold cabinets and FMD vaccine, assessment of the randomly collected samples of vaccines for their quality, virus typing in case of outbreaks and recording/regulation of animal movement from unvaccinated areas through temporary quarantine/ check-posts.

To assess the effectiveness of the vaccination programme, serum samples of 10 cattle and 10 buffalo (at random) before vaccination and 21 - 30 days post vaccination from 10 villages at random from each district for each round of vaccination should be collected and screened for level of serotype specific neutralizing antibodies. A total of 400 serum samples per district per round of vaccination will be continued to be collected at random and tested.

In order to have early warning system in place, State Government is required to undertake surveillance of FMD. In the event of any outbreak, it should be reported immediately and the state should take action to control and contain the disease as per the provisions of the Prevention and Control of Infectious and Contagious Diseases in Animals Act, 2009:

- Each and every outbreak should be investigated to know the epidemiology of the disease with forward and backward linkage.
- Isolation and containment of sick animals and their treatment
- Ring vaccination (5-10 Km) radius around the affected village/area to cover all the susceptible animals including sheep, goats, pigs etc. to prevent virus transmission
- Restriction/control of movement of infected animals to prevent the spread of the infection.
- Disinfection and implementation of bio-security measures
- Adequate Public awareness campaign in outbreak areas.

No change in the manner of funding pattern and implementation of the expanded programme is envisaged. However, the cost of vaccine & vaccination and other logistics including creation of cold chain facility, grants-in-aid to research institutes will be borne

by the Central Government. The vaccine required for mass vaccination will be procured centrally on outsourced basis for ensuring its timely availability in the target districts. Items-wise details under FMD-CP in 1<sup>2th</sup> Plan are indicated at Annexure III.

#### (v) National Animal Disease Reporting System (NADRS)

In the 12<sup>th</sup> Plan, the activities under this component will be continued with emphasis on operationalization of all nodes established under NADRS. The components proposed in NADRS during 12<sup>th</sup> Plan are as follows:-

- (i) Ongoing components
- MIS & Workflow Application Software Development
- NADRS Portal development & Content generation, Localisation
- GIS based Decision Support System
- Development of Disease Intelligence System (DIS)
- Network Connectivity (Landline, WiMAX, VSAT) (Approx. 7000 nodes)
- SPMU/ CPMU manpower (SRF 40)
- Event Management (Workshop, Seminars, trainings, Conferences, Exhibition etc.)
- NADRS Server/ Client Management, Administration
- NIC Project Management Support

#### (ii) New component

Networking of Animal Disease Diagnostic Laboratories (ADDLs) and Workflow Software System, which aims to provide necessary ICT infrastructure like Hardware & its related peripherals, System Software and internet connectivity to the Animal Disease Diagnostic Laboratories situated at State / District level across India and to provide training to the concerned officials on handling of hardware & software for the dissemination of data related to samples received, test conducted on samples and results obtained.

#### (vi) Peste des Petits Ruminants Control Programme (PPR-CP)

The Peste des Petits Ruminants (PPR) is a viral disease of sheep and goats characterized by high fever, inflammation of the gastro-intestinal tract leading to necrosis and ulceration of the mucous membrane and diarrhoea. The PPR infection causes huge losses in the rural economy, both in terms of morbidity and mortality in sheep and goats. The Department has initiated National Control Programme with the ultimate objective to

fully control this disease from the country in a time-bound manner on the lines of Rinderpest eradication in the states of Kerala, Tamil Nadu, Karnataka, Andhra Pradesh, Maharashtra, Goa and UTs of Lakshadweep, Daman & Diu, Dadra & Nagar Haveli, Andaman & Nicobar Islands and Puducherry. This programme is now renamed as PPR Control Programme which involves vaccination of all susceptible goats & sheep and their three subsequent generations (approx. 30%) in all the states including those covered in the first phase. Items-wise details under PPR-CP in 12<sup>th</sup> Plan are indicated at Annexure IV.

### (vii) Establishment and strengthening of existing Veterinary Hospitals and Dispensaries (ESVHD)

Government of India has initiated a programme for establishing new hospitals & dispensaries and strengthening of existing hospitals and dispensaries during 11<sup>th</sup> Plan period. This component is being implemented on 75:25 sharing of expenditure between the Centre and States. However, the pattern of assistance for North Eastern States is 90:10. This programme will be continued in 12<sup>th</sup> Plan Period also as per the detailed existing norms proposed under the Scheme for the major activities to be taken up. These norms are for general guidance only. Assuming the escalation cost of construction for new buildings of veterinary hospitals and dispensaries, a cost escalation up to 25% on the original cost norms of construction without any change in the cost on equipments would be supported under the programme. Therefore, the revised norms for cost on construction of new buildings for veterinary hospitals and dispensaries /establishment of new of veterinary hospitals and dispensaries are proposed as under:

Category	Permissible Amount (Rs. lakh)		
	Hospital	Dispensary	
New (including building & equipment) Central Share	17.50 (construction of new building-16.00+ Equipment-1.50)	13.70 ((construction of new building-12.70+ Equipment-1.00)	
Renovation Central Share	10.00	6.00	

Priority will be given to the proposals from the States/UTs seeking assistance in order of (i) setting up of new veterinary institutions (ii) new building constructions in place of dilapidated structures and (iii) renovation of existing buildings having minimum standards of a veterinary hospital and dispensary.

A new activity 'Mobile Veterinary Clinics (MVCs) will also form part of the component of ESVHD. Each Mobile Veterinary Clinic (MVC) will have the basic diagnostic facility and

treatment of animals and provision for sample collection/transportation from the field. The MVCs will be provided with Rs. 5 lakh grant per annum as upper limit. The funds will be provided to the States/UTs for contractual services for technical persons, hiring the vehicles, procurement of necessary equipment required for treatment and disease diagnosis including sample collection and transportation of these samples to the designated laboratory place maintaining cold chain or preservation as necessary. The vehicle should accommodate the necessary staff, the equipments, reagents/ medicines for treatment and diagnosis, facility for Al and also suitable freeze or related equipments for sample transportation in cold chain. The States/UTs will be asked to submit the action plan and will be examined for its eligibility and funds will be released.

#### (viii) Brucellosis Control Programme (Brucellosis-CP):

Brucellosis is an economically important reproductive disease of livestock of Zoonotic nature. Bovine brucellosis is endemic in almost all the states of India. This disease can be prevented over a period of time by one time vaccination of all eligible female calves. Brucellosis-CP in 12<sup>th</sup> Plan envisages vaccination of female calves between 6-8 months in all states. Adulthood vaccination will also be taken up covering all un-vaccinated adult female bovines in a phased manner during 12<sup>th</sup> plan. Items-wise details under Brucellosis-CP in 12<sup>th</sup> Plan are indicated at Annexure V.

#### (ix) Classical Swine Fever Control Programme (CSF-CP):

Classical Swine Fever (commonly called as Swine Fever or Hog Cholera) is a highly devastating viral disease of the pigs. At present, there is provision to provide the funds on 75:25 basis under ASCAD for prevention and control of this disease. The states are procuring the required vaccine under ASCAD as per their requirement. However, looking at the importance of the disease causing huge loss to the piggery industry and small farmers and need to have dedicated programme to control Classical Swine Fever in the country, it is proposed that a component will be added to the existing CSS (LH&DC) namely, 'Classical Swine Fever Control Programme CSF-CP. However, the national control programme with 100% central funding will be implemented during later part of 12<sup>th</sup> Plan after approval of the scheme. Funds on 100% central share basis will be provided to the States/UTs for carrying out the vaccination of entire eligible pig population in a phased manner starting in NE states which would be the focus. Depending on the vaccine availability, the scope will be enlarged to cover entire country subsequently. States (NE states) will submit the action plan with detailed requirements for assistance under this

activity. Items-wise details under CSF-CP in 12<sup>th</sup> Plan are indicated at Annexure VI.

In view of the benefits as seen in case of FMD, the vaccine will be procured centrally for Brucellosis-CP, PPR-CP and CSF-CP after due consultation with the States.

The monitoring and evaluation will be an in-built component of the scheme. The performance monitoring of the Scheme components will be regularly carried out. There will be a Technical Committee to advise the Department from time to time to frame the guidelines for better implementation of the Scheme. The Empowered Committee under the Chairmanship of the Secretary (ADF) will also suggest any modifications in the Scheme guidelines/ increase the scope of the Scheme as and when required.

Activities to be undertaken under Assistance to States for Control of Animal

l.No.	Items		Activity	
	Immunization against economically important diseases of livestock and poultry.			
	i.	Cost of vaccine	Vaccine will be procured through tendering / from Government biological production units of the States.	
	ii.	Cost of vaccination	This includes expenses on needle, syringes, gloves, sterilizer, cotton, glassware & disposables, chemicals, diagnostics, supportive medicine, transportation and delivery system etc.)	
			Cost of Cold cabinet (maximum upto Rs 4.00 lakh per unit)	
			Cost of Refrigerator (maximum upto Rs 20,000.00 per unit)	
	iii.	Development of cold chain facilities and maintenances of cold chain.	Cost of vaccine carrier (maximum upto Rs 1200.00 per unit)	
2.	1	gthening/ moderni atories	ization of Biological Production units / Disease diagnostics	

	A. Biological Production units	(i) Alteration/modification of BP units (maximum upto Rs 60.00 lakh per unit).
		(ii) Fermentor Technology (maximum upto Rs 70.00 lakh per unit)
		(iii) Freeze drier Machine (maximum upto Rs 65.00 lakh per unit)
	B Disease diagnostics laboratories	<ul> <li>i. Alteration/modification of DI Labs (maximum upto Rs 20.00 lakh per unit). The funds will also be utilized for alteration/modification of the ELISA labs and BSL-2 labs for the purpose of ISO and GLP compliant.</li> <li>ii. Equipments (maximum upto Rs 8.00 lakh per unit)</li> <li>iii. Reagents/ chemicals on recurring basis.</li> </ul>
3.	Training Programme/ S	eminars / Workshop (100%)
	i. Trainings for veterinarian	i. 20 veterinarian in each batch @ max. Rs.10, 000/- per veterinarian
	ii. Trainings for para-	ii. 20 para-veterinarian in each batch) - @ maximum Rs. 7, 000/- per para-veterinarian
	veterinarian	iii. @ Rs. 2.00 lakh per seminar (max.)
	iii. Workshop/S eminar	
4.	Endo-parasitic control	in cattle and buffaloes
	The broad-spectrum anthelmintics will be used. The States are required to send the proposal with complete justification including the prevalence of parasites in the states. The anti-parasitic drugs would be procured only through tendering process.	States will have to submit the annual action plan for control of endo parasites in cattle and buffaloes using anthelmintics (preferably broad spectrum anthelmintics) depending upon the prevailing parasite profile (Nematode, Trematode and Cestode) in the state.
5.	Control of emergent and exotic diseases	i. Expenditure on community awareness/ publicity (100 %)
	(100% except for activity No. iv)	ii. Expenditure on routine collection of serum/ morbid materials for surveillance work, ring vaccination and related activities against exotic and emergent diseases (100%)
		iii. Payment of compensation to farmers for culling of birds, elimination of infected animals, destruction of feed/eggs including operational cost (50:50 basis)
6.	Information and communication campaign including animal health camps	Funds will be utilized organising animal health camps including IEC campaign.

7.	1 0	Nine State Vaccine Production Units will be strengthened to GMP
	Vaccine   Production	standards for which the states have to prepare an action plan.
	Units to GMP standards	Central assistance will be limited to Rs. 10.00 crores only and any
		expenditure over and above will be borne by the State
		Governments.

## Annexure-II Activities to be undertaken under National Project on Rinderpest Surveillance and Monitoring (NPRSM)

SI. No.		Items	Activity
1.	i.	General surveillance of various animal Diseases	Funds will be utilized on travel, POL etc. to carry out surveillance of various animal diseases including syndromic diseases.  Physical and sero surveillance of CBPP and BSE as per requirement of the OIE.
	ii.	Focused Surveillance	

The country is free from diseases like CBPP and BSE. In order to maintain freedom status of these diseases each country has to submit a dossier every year to OIE. The dossier is prepared on the basis of the inputs provided by the states. The funds provided under the component has to be utilized for TA/DA & POL/material collection and dispatch of samples to the designated laboratories (BSE):

- a) Physical surveillance in case of CBPP village search, stock route search and institutional search on the lines of Rinderpest.
- b) Collection and dispatch of samples in case of BSE The brain samples from bovines are to be collected and sent to the designated laboratories for testing

#### Annexure-III

### Activities to be undertaken under Foot and Mouth Disease Control Programme (in existing States/UTs and proposed expansion in States/UTs) during 12<sup>th</sup> Five year Plan.

Item	Activity
	(i) Cost of vaccine – To be procured centrally
Foot and Mouth Disease Control Programme	(ii) Vaccination cost (this includes needle, syringes, cotton, sterilizer, disinfectant, medicines, transportation cost, mobilization of manpower, honorarium, mass propaganda (IEC), maintenance of cold chain facility (including vaccine carriers, ice, etc.) etc. @ maximum Rs. 4.25 per vaccination
	(iii) Development of cold chain facility (Cost of cold cabinets, etc.)
	(iv) Grant in aid to Research Institutes for Sero-monitoring
	(v) Identification/Health card @ Rs.0.50 to 1.00 per animal (For additional population proposed to be covered)

(vi) Control of animal movement (this includes expenditure on
establishment of temporary quarantine/ check posts and also identification
of animals, etc. @ maximum about Rs 10.00 lakhs per checkpost)

# Annexure-IV Activities to be undertaken under National Project on 'Peste des Petits Ruminants-Control Programme' (PPR-CP) during 12<sup>th</sup> Five Year Plan Period

Item		Activity
Peste des Petits Ruminants- Control Programme (PPR -	(i)	Cost of vaccine - maximum @ Rs 1.80/- (excluding taxes as applicable) Vaccine will be procured through tendering/ from Government biological production units of the States.
CP)	(ii)	Vaccination cost @ Rs.2.50 per vaccination (needles, syringes, cotton, sterilizer, disinfectant, transportation, maintenance of cold chain etc.)
	(iii)	Strengthening of ELISA Labs.
	(iv)	Expenditure on animal identification /health cards @ Rs. 0.50 per Card.
	(v)	Cost of deep freezers @ max. Rs. 1.00 lakh per unit
	(vi)	Cost of vaccine carrier @ max. Rs. 1200.00 per unit
	(vii)	Cost of consumables including testing under surveillance and monitoring
	(viii)	Expenditure on mobilization of manpower including TA

# Annexure-V Activities to be undertaken under National Project on Brucellosis- Control Programme (Brucellosis-CP) during 12<sup>th</sup> Five Year Plan Period

Item	Activity
Brucellosis- Control Programme (	(i) Cost of vaccine @ Max. Rs. 25.00 per dose. Vaccine will be procured through tendering
Brucellosis-CP))	(ii) Vaccination cost @ Rs 6.50 /-per vaccination.
	(iii) Strengthening of 32 ELISA laboratories (including cost of ELISA reader)
	(iv) Consumables for ELISA laboratories
	(v) Village level screening of samples (Twice in a year)

**Annexure-VI** 

Activities to be undertaken under National Project on Classical Swine Fever Control programme (CSF-CP) during 12<sup>th</sup> Five Year Plan Period

Item	Activity	
Classical Swine Fever Control programme ( CSF-	(i)	(Strengthening of laboratories including Consumables for laboratories
CP)	(ii)	Vaccination in identified villages including vaccination cost