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1. バ側要請書(写)英文

PROPOSAL FOR GRANT AND TECHNICAL ASSISTANCE FROM THE JAPANESE
GOVERNMENT FOR POULTRY RESEARCH
AND DEVELOPMENT PROJECT

The Application Form for Japan's Grant Aid

Applicant The Government of Bangladesh	Project Title: Poultry Research and Development Project
Economic Sector Agriculture: Livestock	Project Type: 1. Facilities Construction 2. Equipment Supply
Total Project Cost	9269.20 (Tk.in Lakh);Tk.40.00 = 1US \$, Tk.0.36 = 1 Yen
Responsible Ministry (Ministry requesting the aid) Ministry of Fisheries & Livestock	Implementing Agency (Agency in charge of execution of the project) Bangladesh Livestock Research Institute, Savar, Dhaka & Department of Livestock Services, Dhaka.

I. Project Description

1. Background (Please describe in detail)

(1) Current Situation of the Sector

Bangladesh is one of the most densely populated country of the world. At present the population is still increasing at a very high rate. The country aims to achieve self-sufficiency in food production in order to adequately nourish its high rate growing population and minimize unnecessary drains in the importation of food commodities. Based on latest nutrition survey and food balance study, most people are suffering from malnutrition due to poverty and lack of food production particularly, the animal protein foods. The consumption of animal protein in the form of meat, milk, eggs and fish is completely inadequate. The latest average per capita per day available animal protein was 6.1 grams against the minimum recommendation of animal protein consumption by 15 grams per capita per day. This shortage of animal protein can be responsible for mental retardation in children.

Proteins in the Bangladesh diet come mainly from legumes, cereals and fish, and only a small amount comes from livestock and poultry. For nutritional improvement of the people it is indispensable to increase food production from crops, livestock and poultry origin. Because of short production cycle and involvement of minimum inputs, Poultry is one of the best promising sources for faster and efficient production of food of animal origin through egg and meat.

Livestock and poultry are well integrated into the existing farming system of Bangladesh and are directly linked to most of the small farmers income, nutrition and welfare. The present livestock population is estimated to 22.65 million cattle, 0.71 million buffaloes, 23.48 million goats, 0.91 million sheep, 89.86 million chicken and 13.10 million ducks. Livestock accounts directly for 6.5 percent of the country's total GDP. When the indirect contribution of livestock and poultry to the GDP is considered, the total share of livestock in GDP is estimated at 13.2 percent.

Bangladesh Livestock Research Institute (BLRI) was established in the year 1984, as national institute for research on livestock and poultry production. The mandate of the institute is to conduct research for improvement of livestock and poultry production technology which are adopted to local condition following proven experiences from abroad. The BLRI will require the development of research capability to be able to evolve appropriate strategies and practices on poultry production suitable under Bangladesh condition. When the research capability is developed, meaningful research can be conducted and once results are effectively disseminated, there will be a gradual improvement in production performance. The technology developed or adapted by the BLRI will be transferred to the farmers by the Department of Livestock Services (DLS)

Due to some problems the initial funding for BLRI can not cover required physical facilities and human resource development for poultry production research division. To concentrate research and development efforts on different avian species and balance the development of the poultry sector with the other agricultural sector, the Government would like to develop a separate poultry technology development centre under Poultry Research and Development Project where poultry production research division of BLRI will merge on. Hence, the Government would like to seek assistance from donor agency for establishment of Poultry Research and Development Project.

Department of Livestock Services (DLS) is a public sector organization having extensive linkage in all over the country. The main objective of the DLS is to transfer the developed or acquired technology to the farmers for livestock and poultry development of the country. The major activities of the DLS is also to perform treatment and disease control of the animals and birds throughout the country. The DLS have 6 chicken and 2 duck breeding farms. The breeding farms are producing day-old chicks and ducklings and distributed to the rearer farms for rearing at a certain age before laying. These birds are distributed to the farmers for improvement of poultry production. The breeding farm also distribute day-old chicks to the farmers directly.

Poultry Research and Development Project will be introduced with two main components ... 1) Poultry Technology Development Centre which will be located at the Northern site of BLRI, 2) GP farm and expansion of existing 8 breeding farms under DLS (Department of Livestock Services).

(2) Problems to be solved in the Sector

Feed cost alone accounts for 65-75 percent of the total cost of poultry production. Profit in poultry farming, therefore, highly dependent on the cost of the different ingredients used for mixed feed rations. Production of quality feed and least-cost ration, formulation of balanced ration need nutritional analytical support which is completely lacking in Bangladesh. These problems need to be solved urgently for increasing the production of this sector.

Commercial poultry agribusiness enterprises in Bangladesh are based on imported parent stock which have been expanded in the country over the past ten years. The existing hatcheries in the country are fulfilling only about 30 percent of the day-old chick requirement. Establishment of two Grand Parent hatchery farms will alleviate the huge shortage of day-old commercial chicks in the country.

There are eight breeding and seed multiplication farms existing under DLS. These farms are producing day-old chicks from pureline birds. The existing capacity of these chicks

producing farm is not enough to support the present and future estimated demand of 1 breed chick required to support the scavenging and semi-intensive chicken improved programme of the country. The expansion of existing breeding farm will meet the shortag-day-old chicks of the country.

Production of disease free chick is a precondition for higher production and expansion of poultry rearing in the country. A well equipped disease diagnosis laboratory will meet ready diagnosis facilities of the prevailing diseases. Good hygiene and sanitation facilities help to produce disease free chicks from the established facilities under this project.

Scavenging chickens are still the major source of meat and egg in Bangladesh. They are also an important source of cash income for rural women and children. Estimate show that about 75 percent of the eggs and 78 percent of the meat is produced by the scavenging system of production. Pureline breeding stock like Rhode Island Red, Fayoumi, White Leghorns etc. are the major source of breeding stock for improvement of these large scale rural poultry. The pureline breeding stock selection programme through this project will support the national rural poultry development programme.

Appropriate technology for processing of broiler and egg is very much essential for producing quality products. Quality control of these processed products is a precondition for marketing of the poultry products. Processing laboratory and quality determining facilities are required to make the products available at the consumers' centre in a way the consumers like. These facilities need to be established under this project.

Technology transfer through training is an important factor for improvement of poultry in this country. Hygiene, disease control, management and feeding techniques need to be transferred to the farmers, poultry development officer, and other related personnel. This project support will extend this facility that will ultimately promote national poultry meat and egg production.

(3) Necessity and Importance of Improvement in the Sector which lead to the formulation of the Project

a) Poultry Production status:

Poultry provides meats and eggs, one of the most balanced form of all essential health keeping nutrients. Most of the eggs and poultry meat production in Bangladesh are from indigenous birds raised in rural households. About 98% of the chicken and ducks are produced by small holder farmers. Flock size are generally quite small because they are fed only with crop residues, homestead picking and household waste.

The present population of chickens and ducks estimated to 78.37 million (B.B.S.-1983-84). The majority of these birds are of very poor quality indigenous type with very low production performance about 35 to 45 eggs per year. The per capita consumption in Bangladesh is only 19 eggs per head against about 300 eggs in advanced countries. Poultry meat consumption is alarming in Bangladesh which is 0.52 kg. per head per year compared to world average of 6.8 kg. Even though poultry are important source for food for home consumption and of cash income through the sale of eggs and live birds.

Efforts for commercial poultry production started about 10 years back. It is true to say that Bangladesh has enough potentiality for development of commercial poultry production. The main constraints of commercial poultry are non-availability of high yielding chicks, good quality feed and high production cost. Biman Poultry Complex, Eggs and Hens, United Food Complex, Phoenix Poultry, Silver Carp Ltd, Dhaka hatchery etc are the main commercial poultry production operation in Bangladesh. These farms are the only chick source of small scale commercial operation at present.

Low productivity of small holder poultry has been attributed to the deterioration of genetic potential due to continuous inbreeding, inadequate feeding and high incidence of diseases. The indigenous poultry breeds have tolerance to local climatic conditions and thrive under low levels of nutrition. However, their production in terms of egg and meat is poor. By properly upgrading these native stock with more efficient breed for egg production and meat conversion, the natural disease resistance of the native strain will reinforce with the superior traits for more efficient production to give better birds.

Although Bangladesh has no large commercial production of poultry, the country has the potential for the rapid development of a poultry industry. During last five years, a large number of smallholder broiler and layer farming is coming up in and around cities and towns. This increasing trend of broiler and layer production have high potentiality, which can produce efficiently animal protein foods out of available by-products if properly upgraded and managed. In the country's effort for increased food production, by-products like rice bran, oil seeds, peanut, mustard, cotton seed meal, and bone meal are also produced in abundance. Poultry raising is an efficient way of utilizing these by-products into high quality animal proteins.

Because of short generation time and multiple offspring per breeder, Poultry development can be induced at a much faster rate than in any other animal species. Other Southeast Asian Countries, which are very much dependent on imported feed ingredients, have shown that they can attain self sufficiency within a span of 10-12 years.

For Bangladesh, with its severe shortage of food, it is a must to give priority for the acceleration of poultry production.

With improvement of stock coupled with proper immunization against diseases, and proper management, the population and productivity of poultry species can be increased for the benefit of the small holder farmers and the entire population.

The appropriate poultry breeds or crosses and proper management scheme under Bangladesh conditions must be developed taking into consideration the socio-economic profit of the farmers, available resources, and market preferences for poultry products.

During last five years a large number of smallholder broiler and layer farming is coming up in and around cities and towns. This increasing trend of broiler and layer production have high potentiality.

To attain the maximum production potential, there is need to raise the production technology from the present to a level comparable to those in other countries. However, to adopt foreign technology to present Bangladesh conditions and to rationalize the allocation of scarce resource between human and animals require adoptive research both on the technical and economical aspects of poultry production. Thus, a vigorous and concentrated research and development efforts are necessary.

b) Present National Program for Poultry Production:

The Department of Livestock Services (DLS), the Government agency for extending technology to the farmers to promote livestock development, has initiated program for rural poultry development through cockerel exchange and fertile eggs, pullets and day-old chick distribution. In support of fulfilling this objective, the government has established one central poultry farm for multiplication of chickens and one central duck farm for multiplication of ducks, two zonal chicken farm for multiplication and rearing, 25 chicken farm for only rearing and distribution.

Bangladesh Livestock Research Institute (BLRI), a national institute for research on livestock and poultry has been established in the year 1986. The BLRI has started with poultry production Research Division along with other four research division. At present the poultry production research division practically does not have facilities to conduct experiment on different aspects of poultry. A complete centre with experimental farm and well equipped laboratory are urgently required to solve the increasing problem of quick growing layer and broiler farming. This centre will also solve the problem of duck raisers and other specialized fowl raisers.

Expansion of poultry sector is a high priority area in order to increase production of meat and egg to combat animal protein shortage in a shortest possible time. It provides supplemental income to the farmers and generate rural employment, and effectively utilize crop by-products.

c) Available Resources for Poultry Industry Development:

Feed ingredients : For national development of the poultry industry, the feeding aspects must revolve upon the utilization of crop and animal by-products rather than upon imported coarse grains. Such feed ingredients are locally available for development of poultry industry. Only the vitamins and premixes need to be imported partially. At present some of the multinational pharmaceutical companies are producing vitamins and mineral premixes locally.

Manpower: In Bangladesh there are adequate technically qualified manpower at the entry level. To build up the capacity to conduct applied research and development will use the recruitment and training of basically qualified and well-motivated poultry personnel, the provision of adequate research and development facilities and the mechanism for effective dissemination of technology available to the end-users.

d) The Need for the Poultry Research and Development Project:

The present poultry production division of BLRI is not well equipped to conduct laboratory and on-farm based adaptive research and development programme for promotion of poultry technology. The facilities which have been suggested or proposed in present setup seems to be very meager. Intensive research and development activities are needed to improve productive capacity of the indigenous and synthesised breeds of chicken and ducks. Since long, attempts have been made continuously to improve the production performance of local breeds through cross-breeding with exotic blood in the name of cockerel exchange, egg and chick distribution programme but without worth mentionable success. For promotion of poultry production, a well equipped nutritional lab., diagnosis lab., processing laboratory, bird rearing facilities etc. are required under this project.

Commercial poultry agribusiness enterprises based on imported parent stock have expanded in the country over the past ten years. Despite bureaucratic restrictions, particularly relating to customs and importation of inputs and limited access to technical and other supports, a good number of progressive smallholder poultry producers are emerging.

Day-old chick production is carried out by a limited number of private hatcheries which can not cover the country's present requirement. Day-old commercial chicks production under two new established grand parent stock farm may alleviate the constraints of day-old chick through supplying parent stock to the local commercial private hatcheries.

It is known fact that the performances of poultry birds are influenced by several factors like breed, sex, age, dietary nutrients, climatic conditions, dietary ingredients variability, stage and rate of growth and production, systems of rearing and feeding, and some other unseen and/or unknown variables. Scientists in abroad have developed innumerable technologies with employing specifications as per the purposes of poultry rearing. But these technologies and specifications may or may not suffice the poultry rearing management practices under the existing conditions of Bangladesh being related to the above mentioned factors. Hence, there should have the appropriate research facilities to develop/create technologies with respect to poultry feeding, breeding, housing, marketing and management practices relevant to Bangladesh conditions.

Under the socio-economics condition of Bangladesh poultry is the most prospective sector for development to reduce the gap of protein supply in the country. Overriding problems of high chicks mortality, imbalanced requires innovations for improvement of poultry production. To meet the national demand for protein gap through meat and eggs intensified research and development activities on different aspects of poultry is needed which can be fulfilled through the establishment of Poultry Research and Development Project.

(4) Relations between the Sector and the Project

Poultry is widely distributed species among the rural household. The low productivity of the existing birds, quality feed supply, diagnosis of prevailing diseases and transfer of technology are the major constraints for increasing the productivity of poultry. The project will address the existing problems of this sector which ultimately relate the nation production of meat and egg.

(5) Reasons why Japan's Grant Aid is requested for this particular Project

Japan is highly developed in poultry production technology specially chicken. Bangladesh likes to receive the technology of poultry production developed in Japan. The acquired technology will be useful to increase the national production of meat and egg in Bangladesh. This project will support the expansion of farm structural and establishment of nutritional analytical, prevailing disease diagnosis, poultry processing laboratory and training facilities for farmers and trainers. The project will help to increase the management technique of the personnel. The deficiency of facilities in Bangladesh will be expanded through this project. All these required technology is available in Japan which encourage to received Japanies grant aid for this project.

2. Objectives and Outline of the Project

(1) Objectives of the Project : The project will have mainly two component viz. Establishment of Poultry Technology Development Centre, ii) Establishment of GP farm and expansion of existing breeding farm. The Objectives of the project are therefore listed under each of the components:

(i) Short-term Objectives:

a) Poultry Technology Development Centre:

- (1) To intensify poultry production by adoption of modern technology at on-farm levels
- (2) To identify and solve the poultry production problems of the country through research and technological development.
- (3) To establish a modern nutritional laboratory for analysis of feedstuff for poultry.
- (4) To evaluate the locally available conventional and non-conventional feed resources for formulation of least-cost ration.
- (5) To expand poultry rearing farm and equipment facilities for promotion of poultry production and its techniques.
- (6) To incorporate and develop genetic resources through introduction and selection.
- (7) To synthesize a breed suitable for rural scavenging condition.
- (8) To establish a poultry processing laboratory for quality products
- (9) To establish a modern poultry diseases diagnosis laboratory for disease free chick production and identification of prevalent diseases of the country.
- (10) To establish a technical training centre for disseminating poultry technology from the centre.

b) Grand Parent (GP) Farm and expansion of Breeding Farms.

- (1) To expand chick production by increasing breeding stock through development of Grand Parent (GP) stock rearing facilities.
- (2) To expand breeding farm for increasing high yielding chick production and distribution.
- (3) To take appropriate hygienic and disease control measures.

(ii) Medium and Long-term Objectives

- 1) Poverty alleviation through raising income of the rural poor.
- 2) Enhancing the women income through poultry rearing and the nutritional status of people.
- 3) Socio-Economic upgrading of the unemployed youth, rural women through sustainable development.
- 4) Creation of employment opportunity created through poultry rearing.

- (iii) Please fully describe the relations between the project and objectives, and how the project will contribute to the accomplishment of the objectives.

The proposed project will contribute to the accomplishment of the objectives through establishing the facilities lacking in the poultry sector of the country. It will increase the management quality of the project personnel which will help to sustainability of the project activities.

- (2) Outline of the Project (Please give a full description of each facility and equipment and their detailed specifications)

The poultry research and development Institute project will have two main functional facilities:

- 1) Poultry Technology Development Centre and
- 2) Grand Parent Farm and Existing Breeding Farm expansion.

The Poultry Technology Development Centre will have the following sectional facilities:

- a) Feed and Nutrition Section: Balance and least-cost ration formulation is essential for efficient production. A well equipped feed and nutrition laboratory will be established under this section for regular nutritional analysis support. Different type of conventional and non-conventional feed ingredients will be analyzed in this laboratory up to amino acid, vitamins and minerals levels as routine job.
- b) Hygiene and Sanitation Section: Disease free chick is precondition for expansion of poultry industry. A well equipped disease diagnosis laboratory for accurate identification of prevailing diseases of poultry will be established. It will undertake study on pathogenicity and pathological change in the tissue and organs during infectious and non-infectious diseases.
- c) Breeding Section: Pureline breeding farm facilities will be developed under this section. Selection and improvement programme of pureline birds like White Leghorn, Rhode Island Red, Fayoumi etc. will be conducted. This section will supply the pureline chicks to the Breeding and multiplication farm of DLS for improvement of scavenging and semi-intensive poultry production.
- d) Processing and Quality Control Section: Post harvest technology and quality control laboratory will be established for routine work. Processing of poultry and poultry products will be done in a way the consumers like.
- e) Poultry Rearing Farm Section: Rearing farm facilities will be developed for improvement of management skill, MARUTO management system will be introduced in this country from Japan. Poultry rearing personnel will be trained to extend the technique of rearing to the farmers and trainers.
- f) Training and Technology Transfer Section: Developed and adopted technology will be transferred to the farmers and farmer's trainers through regular training. A training facility with a dormitory accommodation of 25 participants will be created for facilitating continuous training on poultry technology.

- 2) Grand Parent Farm and Existing Breeding Farm expansion.
 - a) Establishment of GP farm for layer at Savar Govt. Poultry Farm: The existing Savar Govt. Poultry Farm will be transferred as GP farm for layer. The additional facilities will be developed with all equipment and structural facilities.
 - b) Establishment of GP farm for broilers at Sitakunda Govt. Poultry Farm: the existing Sitakunda Govt. poultry farm will be extended and converted as GP farm for broiler. In addition to existing facilities available, required facilities for broiler GP farm will be developed.
 - c) Expansion of existing six breeding farm: At present, DLS is running six breeding and multiplication farm for pureline chick production. These breeding farm will be extended with additional facilities for increasing chick production capacity for scavenging and semi-intensive poultry production.

The major equipment required for the project are listed below:

List of the equipment

Annexure-1

(3) Location Plan of each Facility and/or Equipment

The project headquarter will be located at the northern site of BLRI at Savar, Dhaka, about 20 kilometer away from the capital. The Poultry Technology Development Centre (PTDC) will be located at the same complex area of headquarter at Savar. Grand Parent stock farm for layer will be located at existing Savar poultry farm under DLS, about one kilometer distance from the main complex of the project headquarter. Grand Parent stock farm for broiler will be located at Sitakunda existing Public sector poultry farm. Six breeding farms under DLS will be expanded for increasing the chick production of pureline breed like Rhode Island Red, White Leghorn, Fayoumi etc.

The facility and equipment for PTDC and GP farms will be acquired through this project. The expansion plan will require extending some facilities in the existing multiplication farm under DLS.

- (4) Cost Estimates (Please describe in detail all the premises on which the cost estimates are based such as basic unit prices, inflation rate, foreign exchange rate, and so on. Please attach detailed tables of estimated costs of each facility and item of equipment. If estimated in local currency, please mention the latest exchange rate of the currency to the U.S. dollar or the Japanese yen).

Cost : Detail Cost Estimate :

4.A Summary of the Estimated Budget

Sl.No.	Items of Cost	1st yr	2nd yr.	3rd yr	4th yr	5th yr	Total Tk in Lakh
1.	Salary and allowance (With price escalation)	66.89	76.23	89.70	100.02	103.48	436.32
2.	Investment Cost(With price escalation)	1470.54	4568.47	1140.20	1067.21	576.46	8832.88
Total:		1537.43	4644.70	1229.90	1167.23	679.94	9269.20

* 1 US\$ = Tk.40.00

* 1 Yen = Tk.0.36

4.B Salary and allowances

Sl. No.	Items of cost	1st yr.	2nd yr.	3rd yr	4th yr	5th yr	Total Taka in Lakh
1.	BIRI-Part : Salary	28.08	29.22	30.28	31.38	32.47	151.43
	Price escalation of salary	-	2.92	6.06	9.41	9.74	28.13
	Allowances	24.28	25.05	28.28	28.87	29.93	136.41
	Price escalation of allowances	-	2.51	5.66	8.66	8.98	25.81
	Sub-Total (A)	52.36	59.70	70.28	78.32	81.12	341.78
	BLS-Part : Salary	7.66	7.95	8.24	8.53	8.82	41.20
	Price escalation of salary	-	0.80	1.65	2.56	2.65	7.66
	Allowances	6.87	7.07	7.94	8.16	8.38	38.42
	Price escalation of allowances	-	0.71	1.59	2.45	2.51	7.26
	Sub-Total (B)	14.53	16.53	19.42	21.70	22.36	94.54
	Grand Total (A+B)	66.89	76.23	89.70	100.02	103.48	436.32

4.C Investment Cost : (BLRI & DLS Part)

Items of Cost	1st yr	2nd yr	3rd yr	4th yr	5th yr	Total Taka in Lakh
Capital	926.90	3080.25	160.00	150.00	60.00	4387.15
Recurring	543.64	1072.90	790.17	670.93	383.43	3461.07
Sub-Total (A) :	1470.54	4153.15	950.17	820.93	443.43	7848.22
Price escalation (B)	-	415.32	190.03	246.28	133.03	984.66
Grand Total (A+B)	1470.54	4568.47	1140.20	1067.21	576.46	8832.88

4.D Investment Cost BLRI-Part:

Sl. No.	Items of Cost	1st yr	2nd yr	3rd yr	4th yr	5th yr	Total Taka (Lakh)
1.	Capital investment :						
	Land	-	-	-	-	-	Avail- lable
	Construction & Furniture	246.99	237.93	-	-	-	484.92
	Vehicle	65.00	135.96	-	-	-	200.96
	Equipment	14.91	1556.36	-	-	-	1671.27
2.	Recurring investment:						
	(a) Birds, feed, oil-fuel, maintenance, gas bill, electricity bill, T & T bill	52.64	57.90	63.17	68.43	68.43	310.57
	(b) Seminar/Workshop, Printing/Publication, fellowship/training, books & journals	-	533.00	344.00	224.50	118.00	1219.50
	(c) Stationary	1.00	2.00	3.00	3.00	2.00	11.00
	(d) Consultancy	200.00	200.00	150.00	150.00	-	700.00
	(e) Miscellaneous	50.00	50.00	50.00	50.00	50.00	250.00
	Sub-Total (A)	630.54	2873.15	610.17	495.93	238.43	4848.22
	Price escalation (B)	-	287.32	122.03	148.78	71.53	629.66
	Grand Total (A+B):	630.54	3160.47	732.20	644.71	309.96	5477.88

4.E Investment Cost : DLS Part

Sl. No.	Items of Cost	1st yr	2nd yr	3rd yr	4th yr	5th yr	Total Taka (Lakh)
1.	Capital :						
	Land purchase & Development	200.00	-	-	-	-	200.00
	Construction	400.00	-	-	-	-	400.00
	Machinaries & equipment	-	400.00	-	-	-	400.00
	Transport & Vehicle	-	250.00	-	-	-	250.00
	Consultancy	-	300.00	100.00	100.00	60.00	560.00
	Training	-	100.00	60.00	50.00	-	210.00
2.	Recurring :						
	Feed	60.00	60.00	60.00	60.00	60.00	300.00
	Medicine & Vaccines	50.00	50.00	50.00	50.00	50.00	250.00
	Operation & maintenance	30.00	20.00	20.00	150.00	10.00	95.00
	Grand Parent chicks	100.00	100.00	50.00	50.00	25.00	325.00
	Sub-Total (A)	840.00	1280.00	340.00	325.00	205.00	2990.00
	Price escalation (B)	-	128.00	68.00	97.50	61.50	355.00
	Grand Total (A+B)	840.00	1408.00	408.00	422.50	266.50	3345.00

3. Benefit, Effect and Publicity of the Project

(1) Population that will benefit directly from the project

The poultry production technology acquired through this project will be disseminated throughout the country. Smallholder poultry farmers, unemployed youth, poor women will be benefitted directly through this project. The local parent stock hatchery will receive parent stock from the established Grand Parent farm which will reduce the production cost of day-old chicks. This will give benefit to all small and large commercial farm of the country. Pureline selection facilities developed under PTDC will protect the degeneration of pureline breed's chicks distributed by the DLS. Total poultry sector will ultimately be benefitted with this project directly.

(2) Population that will benefit indirectly from the project

With the completion of this project, the total meat and egg production of the country will increase which in turn will help to meet up the protein shortage of the people of the country. So all population of the country will be benefitted indirectly through this project.

(3) Area that will benefit from the project

After completion of the project, directly or indirectly whole country will be benefitted from this project.

(4) Economic and Social Effects of the Project (Please describe in detail)

(i) Current situation

During the last five years a large number of small and medium scale broiler and layer farm have been established in and around big cities and towns. This increasing trend of broiler and layer production have high potentiality. Distribution of pureline chicken like Rhode Island Red, White leghorn, Fayoumi or their crosses to the rural areas is a major activities for rural poultry improvement. The main constraints to the further growth of poultry are non-availability of high yielding chicks, good quality feed and modern technological support. To attain there is a need to raise the chick production. To improve the situation, a vigorous and concentrated research and development efforts are necessary to generate and adopt new technology which will be supported through this project from Japan.

(ii) Expected Effect of the Project

This project will increase income generation activities of the rural poor, women and unemployed youth which in-turn increase purchasing power and decrease malnutrition problem in Bangladesh. This development will have great impact on social development among the beneficiaries.

The another project is : Extension of Artificial Insemination network with the use of deep frozen semen and embryo transfer technology in Bangladesh.

(Please attach project list with priorities)

6. Ministry and Agency in charge of the Project

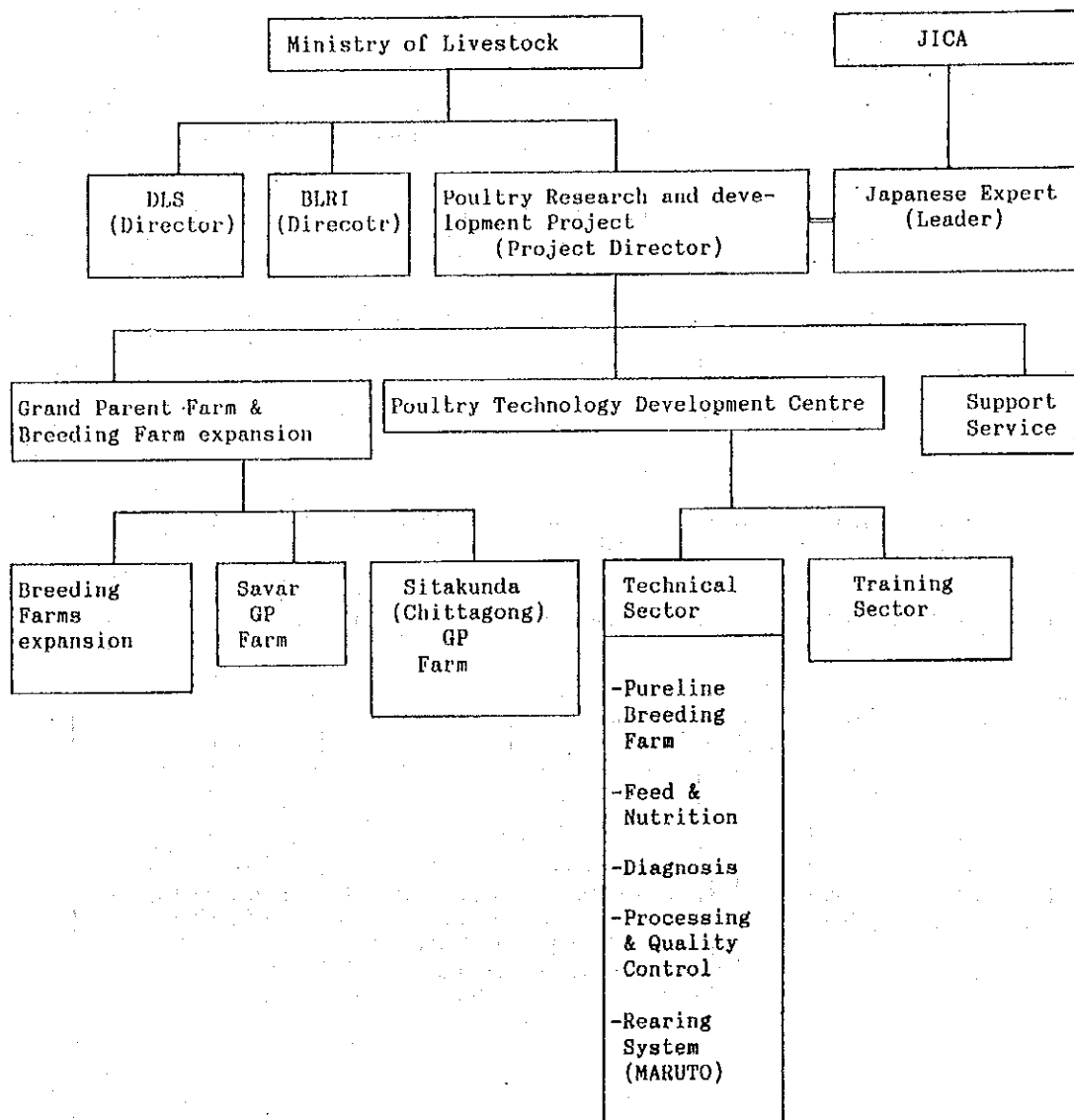
- (1) Outline of Implementing Agency (Please describe in detail)
(The Agency in charge of the execution of the Project)

Organizational Management of the Poultry Research and Development Project:

The project will be under the auspices of the Ministry of Fisheries and Livestock. It would be headed by a Project Director who shall report directly to the Ministry of Fisheries and Livestock and who will work closely with the Bangladesh Livestock Research Institute and Department of Livestock Services. This project will have two major component viz- 1) Poultry Technology Development Centre, 2) Grand Parent Farm and expansion of existing Breeding Farm under DLS. Poultry Technology Development Centre would consists of five department with different laboratory and farm facilities support, in specific nutritional analysis, diagnosis, processing, training etc. The disciplines such as : poultry rearing, i.e. farm facilities & MARUTI System, Nutrition, Disease diagnosis, Processing, Farmer Training, Pureline Breeding, and Support Service Section. Computer facilities will work to support research activities. Two Grand Parent (GP) farm will be established under this project. The existing breeding farm of DLS will be expanded and rehabilitated under this project.

(i) Organization Chart of the Agency (in general)

(Please mark the responsible department and division in charge of the pr



(Please attach detailed organization chart pointing out the responsible departm division and sections in charge of this project)

(ii) Authorities and Duties of the Agency

The Ministry of Fisheries and Livestock will bear overall responsibility for the development activities undertaken in the course of the project. However, the Govt. of Bangladesh will designate Project Director for the implementation of the said project. BLRI will provide the existing facilities of Poultry Development for undertaking the project. Two existing farm of DLS namely Savar Poultry Farm & Silakundo Poultry Farm will be improved as Grand Parent Farm through this project. Project director will be directly controled by the Ministry of Fisheries and Livestock Project Director will be responsible for overall implementation of the project.

- (iii) Personnel (Please mention the number of staff, workers, and employees of the agency and the responsible department, division and section in charge of the Project)

Ministry of Fisheries and Livestock will be incharge of the project.

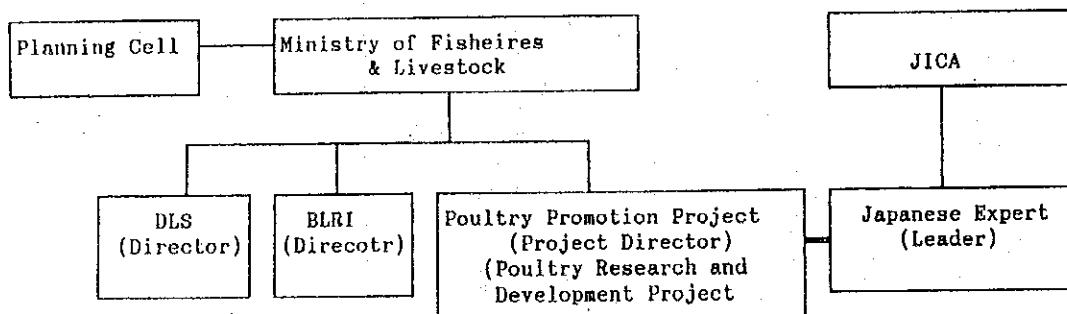
- (iv) Budget (Revenue and Expenditure)

DLS 5500.0 Lakh

BLRI 413.0 Lakh

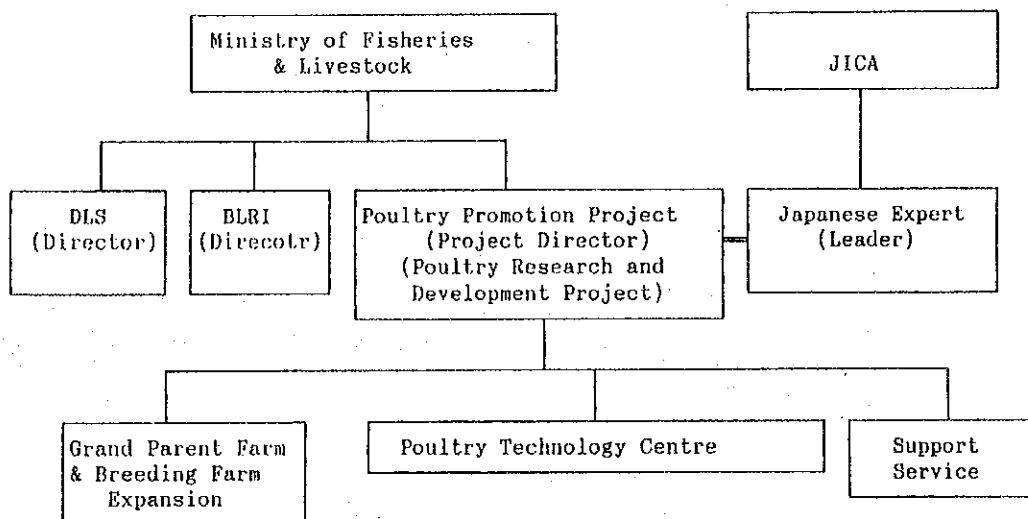
(If mentioned in local currency, please mention the latest foreign exchange rate of the currency to the U.S. dollar or the Japanese yen)

(2) Outline of Supervising Ministry (Please describe in detail)



(i) Organization Chart of the Ministry (in general)

(Please mark the responsible department and division in charge of the project and implementing agency)



(Please attach detailed organization chart pointing out the responsible department, division, and sections in charge of the project and implementing agency)

(ii) Authorities and Duties of the Ministry

Ministry of Fisheries and Livestock (MFL) is fully authorized to handle the proposed project. Duties of the Ministry are execute the project after approval of the Donor agency along with the Government of Bangladesh.

(iii) Personnel (Please mention the number of staff, workers and employees of the Ministry and the responsible department, division and section)

MFL	Officer - 24,	Staff = 66
DLS	Officer - 1475,	Staff = 4000
BLRI	Officer - 54,	Staff = 62

(iv) Budget (Revenue and Expenditure)

(If mentioned in local currency, please state the latest foreign exchange rate of the currency to the U.S. dollar or the Japanese yen)

MFL - Expenditure - 81.30 Lakh
DLS - " - 5614.71 Lakh
BLRI- " - 413.00 Lakh

7. Preparation

(1) Project Site (Please attach photographs and maps of the site with the various scales including that of 10,000:1) Photograph & map-Annexure:2

(i) (a) Address of the Site

The project site headquarter will be located about 20 kilometer away from Dhaka city, the capital of Bangladesh. It will be located at the northern site of BLRI.

(b) Total Area of the Site

Total area of BLRI is 500 acres. Out of this, required area could be allocated for this project.

Total area of Savar Poultry Farm is 10 acres
Total area of Sitakunda Poultry Farm is 10 acres
Total area of 8 breeding Farm is 60 acres

(ii) Land Preparation

(a) To which extent has the land been expropriated for the project?

Completely disposes for the project as this land belongs to BLRI and other site land belongs to DLS.

(b) When will the expropriation of the land be completed?

Already expropriated

(Please attach the laws and procedures concerning the expropriation of land)

(2) Electricity, Water Supply, Telephone, Drainage and Other Facilities

(Please describe the extent to which above mentioned incidental facilities have been prepared)

The headquarter of the project site have 10 percent support available under BLRI. The other sites of the project have 75 percent facilities available under DLS.

- (3) Is there any information, statistics and data regarding geographical, geological, meteorological, oceanographical situations, etc.

(If any, please attach those information)

Not applicable

8. Capabilities of the Implementing Agency
(Please describe the capabilities of the agency to manage, sustain, and operate the project)

- (1) Current Situation

Ministry of Fisheries and Livestock is fully capable for implementing this proposed project.

- (2) Problems of the Agency

Shortage of input, technology and management facilities.

- (3) Improvement Plan (If any, please describe in detail the contents of such a plan that will enable the Agency to handle the project more effectively and efficiently)

Not applicable

9. Operation and Management of the Project : Organogramme enclosed in additional sheet.
(Please see Annexure-3)

- (1) Personnel (Please fill in the number of personnel)

	Current	When the Project is completed
Supervising Ministry	MFL-90	-
Implementing Agency	BLRI-116, & DLS-5475	-
Directly Responsible Personnel	Project Director, & staff member-112	-

The basic educational background of personnel is graduate in animal science/veterinary science. The education background of the persons who will be incharge for the proposed facilities and equipment are Masters or Ph.D. in the relevant areas of specialization.

10. List of Related Projects

(Please fill in below if there is a project executed by another donor country or international organization in related areas)

- (1) Name of donor : IFAD and DANIDA
- (2) Project Title : Livestock Development Project For Small and Marginal Farmers in Eighty Selected Thanas.
- (3) Project Outline: The project will cover eighty selected thanas of Bangladesh. The project involves a focus on landless as well as on marginal farmers, to develop non-crop productive activities, providing them with additional income, and concentrates particularly on women. The project functions through DLS and Non-Government Organization (NGO) for based poultry, and goat development. There is a provision for credit support to the farmers through this project. The DLS supplies chicks and goats as input service to the project and the NGO undertake the field functional operation of the project.
- (4) Type of Assistance : : Loan and Technical Assistance
(grant, loan,
technical assistance, etc.)
- (5) Project Period : 01-07-91 to 30-06-96
- (6) Relations with this Project : The present existing six breeding farm are supplying day-old chicks to this IFAD project. The proposed expansion of this breeding farm will help very much to ensure the supply of requisite number of quality chicks. The expansion of these breeding farms will increase the chick production which inturn will help and support the IFAD project.

(If there are many project, please attach a list of those projects explained in the same way)

11. Technical Assistance

(1) Has technical assistance been extended to this project?

(i) Yes. (ii) No.

(2) Is technical assistance needed for the implementation of this project?

(i) Yes. (ii) No.

(3) If no, please describe the reasons why technical assistance is not needed.

(4) If yes, please fill in below.

(i) Short-term experts (3 persons) (sector:)

1.	Chick sexing
2.	Traditional poultry management.
3.	Poultry pathologist

(ii) Long-term experts (5 persons) (sector:)

1.	Project leader
2.	Nutrition,
3.	Hygiene
4.	Management,(MARUTO)
5.	Coordinator

(iii) Acceptance of trainees (persons) (course:).

(iv) Project-type Technical Cooperation
(If needed, please describe the proposed project outline.)

(v) Japan Overseas Cooperation Volunteers

(If needed, please describe the proposed sector and related information)

Not needed

(vi) Development Survey Programme (Feasibility Studies, and Master Plan)

(If needed, please describe the outline of the proposed development survey programme)

Primary Development survey has been conducted by JALTA during December, 1993 and February 1994 and recommend positively for undertaking of the project.

(5) Has an official request for technical assistance been already made?

(i) Yes. (ii) No.

(iii) If yes, please mention the date of the request.

The initiative of the poultry development activities has been accelerated recently. So, the need for this type of project emerged very much now.

(iv) If no, please describe the reason why the official request has not yet been made.

It is under process

(v) When will the request be made to the Embassy of Japan?

II. General Development Plan

1. Title of the Plan (Please attach the whole volume of the latest general development plan).

Fourth Five Year Plan 1990-1995

2. Economic and Social Situation
(Please mention the basic statistics of economic fundamentals)

(1) GNP

(2) National Income, Sector by Sector

Livestock Sub-Sector - 6.5%

(3) Unemployment Rate 0.1%

(4) Inflation Rate -

(5) Growth Rate 4.8%

- (6) Balance of international Payments -
- (7) Labor Population (as a whole, and sector by sector)
- (8) Debt Service Ratio
- (9) Outstanding Debts
- (10) Major Items of Exports and Imports and their value

Export	Import
-Garments	-Machinery & equipment
-Jute & Jute Product	-Medicines
-Tea	-Cements etc.
-Hide & Skin	
-Fish & Fish Products	
-Manpower	

- (11) Major Trading Partner
Japan, USA, CIS, Middle East, China, India, EEC.

- (12) Population and its Growth Rate

120 million
2.2%

- (13) Average Life Expectancy (Male and Female)

Male 52, Female 51

- (14) Death Rate and Birth Rate

3.3%

(15) Medical Structure

1:6000

(16) Ten Diseases most afflicting the nation

Diarrhoeal Diseases, Tuberculosis, Measles, Bronchitis, Heart disease, Kidney disease, Hepatitis, Typhoid etc.

(17) Illiteracy Rate-68% (or Literacy Rate-32%)

(18) Other data

3. Outline of the Plan

(1) Most Important Sectors in the Plan

Agriculture Sector
Livestock & Fisheries Sub-Sector

(2) Basic Objectives of the Plan (Please describe in detail the objectives by using concrete figures)

1. Increased supply of livestock products
2. Increased employment from livestock
3. Increased supply of draught power in support of crop production.

(3) How will the above-mentioned objectives be achieved?

1. Establishment of Dairy Farm both in private & public sector
2. Establishment of Poultry Farm both private & public sector
3. Intensive programme for breed development of Dairy by A.I. and poultry hybrid development.
4. Manpower development
5. Control of livestock and poultry diseases.

(Please mention specific projects and programme to achieve the objectives)

4. When will the plan be executed and completed?

It will be executed in 1990-1995

5. Relations between this project and the general development plan. (Please describe the significance of the project in the general plan).

This project will help to achieved the objective of the General Development Plan

6. Is there any assistance that other donors have extended/will extend to the projects and/or programme listed in the general plan?

(i) Yes. (ii) No.

(iii) If yes, please give basic information on the assistance

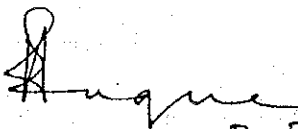
(a) Name of donor

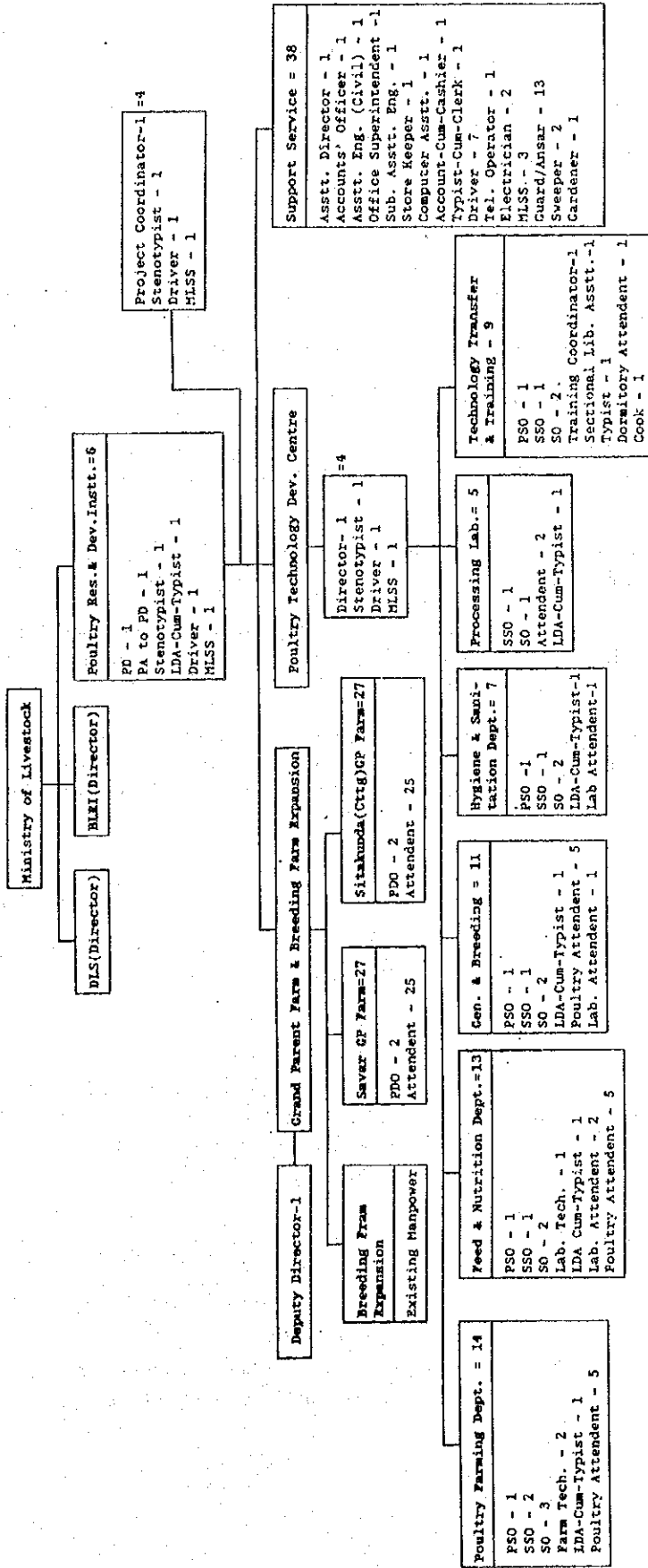
(b) Project Title

(c) Project Cost

(d) Type of Assistance (Grant, Loan, Technical Assistance etc.)

(e) Project Outline


8-5-94
(DR. Q. M. Emdadul Huque
CSO, BLRI, Savar.



Total Manpower = 112

- Legend :
- PD = Project Director
 - PSO = Principal Scientific Officer
 - SSO = Senior Scientific Officer
 - SO = Scientific Officer
 - CP = Government Poultry Farm
 - PDO = Poultry Development Officer
 - Gen = Genetics

2. ミニッツ(写)英文

MINUTES OF DISCUSSIONS
ON
THE PROJDC T FOR IMPROVEMENT OF POULTRY PRODUCTION
TECHNIQUES
IN THE PEOPLE'S REPUBLIC OF
BANGLADESH

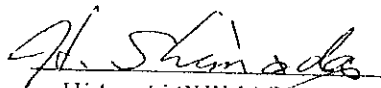
In response to the request made by the Governments of the People's Republic of Bangladesh for the Project for Improvement of poultry Production Techniques (which corresponds to the request of the POULTRY RESEARCH AND DEVELOPMENT PROJECT) in the People's Republic of Bangladesh (hereinafter referred to as "the Project), the Government of Japan has sent a preliminary survey team (hereinafter referred to as "the Team) headed by Mr. Hideyuki SHIMADA from January 29 to February 11, 1995, through the Japan International Cooperation Agency (hereinafter referred to as "JICA"). The purpose of the team was to asses the relevance of the request, to study the feasibility of the proposed technical cooperation program and to identify the components and problems for the implementation of the Project.

The Team has carried out a field survey, held a series of meetings and exchanged views with the authorities concerned from the Government of the People's Republic of Bangladesh.

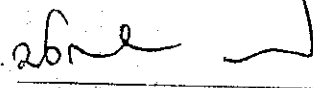
As a result of the discussions, JICA and the authorities concerned from the Government of the People's Republic of Bangladesh agreed to recommend to their respective Governments the tentative framework referred to in the document attached hereto.

The Bangladesh side stated and the Japanese side took note that the project expenditure and operation would be in line with the PP/TAPP which would be prepared and approved by the Government of Bangladesh taking into consideration the Japanese technical cooperation system and its input.

Dhaka, February 9, 1995

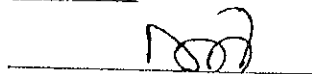


Hideyuki SHIMADA
Leader
Preliminary Survey Team
Japan International Cooperation Agency

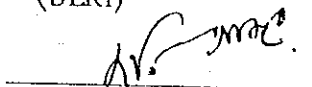


Md. Azizul ISLAM
Deputy Secretary
Economic Relations Division(ERD)
Ministry of Finance
Government of Bangladesh

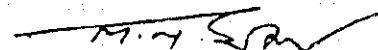
WITNESS



PRAKRITI RANJAN CHAKMA
Additional Director
Bangladesh Livestock Research Institute
(BLRI)



Abdul JALIL AMBAR
Deputy Director
Department of Livestock Services (DLS)



Malik Md. SHAH NOOR
Deputy chief
Ministry of Fisheries and Livestock
Government of Bangladesh

THE ATTACHED DOCUMENT

I. SUMMERY

The Team investigated the background and contents of the proposed Project and the current situations and issues on poultry production in this country, through a series of discussions with Economic Relations Division (ERD), Planning commission, Ministry of Fisheries and Livestock (MOFL), BLRI, DLS in Bangladesh and field survey during the period from 29 January to 11 February, 1995.

The technical issues so far have been identified on feeding management for poultry and poultry infectious diseases prevention in Bangladesh. The Team confirmed that it is meaningful to start this type of project, in that the Project's outcome will enhance productivity of poultry and contribute to improving human nutrition conditions in the People's Republic of Bangladesh.

Taking into account the findings of this survey, the following tentative framework of the Project specified in III based on the proposal submitted on 13th November, 1993(Reiterated later on 7th January 1995) has been drawn up. This framework however may be subject to change through the coming discussions or survey.

II RESULTS OF SURVEY

The team investigated BLRI, DLS and farm level and the team concluded the result as follows :

(1) Project site

The team confirmed that Bangladesh Livestock Research Institute (BLRI), Savar has some existing facilities available for the project, such as poultry sheds, growing houses, a hatchery and feeding room. They could be used for the Project as main facilities although not sufficient. Therefore, BLRI could be considered to be the Project site.

(2) Implementing organization

In the process of discussions, the team observed that there are some differences in understanding on implementing organization between Bangladesh and Japanese side. Japanese side recognized that the Project will be implemented by BLRI in close collaboration with DLS as a cooperating organization, since it is indispensable for this project to involve DLS as a cooperating organization, since it is indispensable for this project to involve DLS in order to disseminate the transferred technology to farmers.

Meanwhile, the Bangladesh side insisted that both organizations should be involved in the implementation in order to ensure even support.

Finally, the team recommended that DLS be treated as an implementation organization, in the light of the importance of its role in the nationwide extension activities.

(3) Technical problems related to Poultry development

Feeding management :

Technical issues as institutional level have been a remaining major concern regarding hatching, breeding eggs, grower and adult birds. These problems may be caused by a lot of infected poultry in the same shed, mixing with male and female birds at the growing stage, lack of proper cleaning up of poultry houses not sufficiently thorough in the vaccination program and not using the particular clothing for the prevention of diseases.

Because of lack of performance of existing stock, it is important to introduce improved poultry stock, if possible.

Poultry diseases :

Currently the main infectious diseases of poultry in Bangladesh are Newcastle disease, Marek's disease, Infectious bursal disease and pullorum disease. The domestic and imported vaccines are being used for these acute infectious diseases under the vaccination program and/or instructions. However they have not functioned sufficiently so far.

(4) World Bank finance programme, IFAD project and other international assistance

Since 1984, BLRI was established and was made operational with the financial assistance from World Bank-US-AID, Ford Foundation etc. BLRI received an amount of TK 1,371 lakh. from World Bank.

One project entitled "Small holder livestock development project" in 80 selected Thanas (out of 464 Thanas) is under operation through IFAD and DANIDA at the Department of Livestock Services (DLS). Poultry is one of the components of this project. The project involves a focus on landless as well as on marginal farmers, to develop non-crop productive activities, providing them with additional income, and concentrates particularly on women. The project is carried out in collaboration with DLS and NGOs. The DLS supplies chicks and goats as input service to the project, while the NGOs undertake the field extension functional operation of the project.

(5) Possibility of WID

As aforementioned, DLS is carried out some extension service to local farmers including rural women in cooperation with NGOs so that there would be a basis of transferring basic techniques to them, aiming at improving poultry productivities, thus contributing to enhance the social status of women.

(6) Others

- (1) "Local cost" should be born by Bangladesh side.

Note : "Local cost" means that customs duties, internal taxes, and any other charges such as salary of counterparts, electric charges etc. imposed in Bangladesh on all project equipment and running expenses necessary for the implementation of the Project.

(2) No countermeasures have been taken by Bangladesh side for frequently occurred power failure in BLRI. Neither maintenance of related facilities are sufficiently managed.

(3) The team have found that there are some problems about the management in some organizations. However, Vaccine production laboratory in Mohakhali and some part of BLRI are well organized and functioned in practical aspect, but the existing facilities and equipment are not sufficient at present.

III. TENTATIVE PROJECT FRAMEWORK

1. NAME OF THE PROJECT

Project for Improvement of Poultry Production techniques in People's Republic of Bangladesh.

2. BANGLADESH ORGANIZATION FOR THE PROJECT

(1) Ministry responsible to the Project

Ministry of Fisheries and Livestock

(2) Principal organization for implementing the Project

Bangladesh Livestock Research Institute (BLRI)
Department of Livestock Services (DLS)

3. SITE OF THE PROJECT

The site of the Project will be the following ;

Bangladesh Livestock Research Institute (BLRI), Savar, Dhaka
(Inputs such as Japanese experts and equipment will be concentrated in BLRI)

4. TERM OF COOPERATION

THREE Years

Note : The cooperation period could be extended when necessity arises.

5. MASTER PLAN

(1) Objectives of the Project

(a) Overall Goal

To enhance the poultry productivity in the People's Republic of Bangladesh.

(b) Project Purpose

The improvement of the overall relevant techniques including feeding management for poultry and poultry infectious diseases prevention to the small scale farmers including vulnerable groups.

(2) Activities of the Project

- a. Transfer of Feeding management techniques for poultry
- b. Transfer of Poultry infectious diseases prevention techniques

(3) Output of the Project

- a. Improvement of the above-mentioned techniques
- b. Publication of manuals for the poultry production managements
- c. Human resources development

6. MEASURES TO BE TAKEN BY JAPANESE SIDE

(1) Dispatch of Experts

a. The Japanese long-term experts

(a) Project Leader

(b) Coordinator

(c) Long-term experts in the following fields :

a) Feeding management for poultry

b) Poultry infectious diseases prevention

Note : Team Leader may serve concurrently as an expert in one of the above mentioned technical fields.

b. The Japanese short-term experts

Short-term experts may be dispatched when necessity arises within the framework of Master Plan

(2) Acceptance of Counterpart Personnel

Annual acceptance of counterpart personnel of Japanese experts and related personnel with DLS, BLRI and other related officials for training in Japan shall be arranged during the cooperation period.

(3) Provision for Machinery and Equipment

Necessary machinery, equipment and other materials for the implementation of the Project would be provided within the budgetary limitations.

7. MEASURES TO BE TAKEN BY BANGLADESH SIDE

(1) Provision of buildings and facilities necessary for the implementation of the Project

(2) Assignment of the necessary number of full-time counterpart personnel to meet the fields of Japanese long-term experts

(3) Budgetary allocation necessary for the implementation of the Project

(4) Coordination and harmonization of related agencies and institutions

8. ADMINISTRATION OF THE PROJECT

(1) Secretary of Ministry of Fisheries & Livestock (MOFL) will assign the Project Director who will bear overall responsibility for the administration and implementation of the Project.

(2) Project Manager (Coordinator) will be assigned by Secretary of Ministry of Fisheries & Livestock who will be responsible for the managerial and technical matters of the Project.

Note : Japanese side regards the coordinator as the Project Manager

(3) Director General of DLS and Director of BLRI will extend all support in the implementation of the Project.

9. JOINT COORDINATING COMMITTEE

1. Function

The joint coordinating committee composed of those members as listed in 2 below will meet at least once a year and whenever the need arises.

- (1) To formulate the Annual Work Plan under the Framework of the Record of Discussions
- (2) To review the overall progress of the technical cooperation program as well as achievement of the Annual Work Plan of the Project
- (3) To review those measures taken by the Government of Japan
- (4) To review those measures taken by the Government of the Republic of Bangladesh
 - a. Allocation of necessary budget (including local cost expenditures)
 - b. Allocation of necessary counterpart personnel
 - c. Utilization of Machinery and equipment provided by the Government of Japan.
- (5) To recommend to the respective Governments particularly on :
 - a. Budgetary matters
 - b. Recruitment and appointment of the Bangladesh counterpart personnel
 - c. Selection and effective utilization of machinery and equipment
 - d. Appropriate dispatch of Japanese experts
 - e. Acceptance of Bangladesh counterpart personnel in Japan for training
 - f. Others

2. Composition of the Committee

- (1) Chairperson : Secretary, Ministry of Fisheries and Livestock
- (2) Members :
 - a. Bangladesh side
 - (a) Director General of Department of Livestock Services
 - (b) Director of Bangladesh Livestock research Institute
 - (c) Executive Vice Chairman of Bangladesh Agricultural Research Council
 - (d) Joint Chief of Planning Commission
 - (e) Director General I.M.E.D (implementation Monitoring Evaluation Division, Ministry of Planning)
 - (f) Project Director of the Project
 - b. Japanese side
 - (a) Team Leader
 - (b) Coordinator
 - (c) Experts assigned to the Project
 - (d) Other Japanese experts and personnel concerned dispatched by JICA, if necessary
 - (e) Resident Representative and/or Deputy Resident Representative of JICA Bangladesh Office

Notes :

1. Official(s) of the Embassy of Japan may attend the Joint Coordinating Committee meeting as observer(s)
2. Person(s) who is/are nominated by the Chairman may attend the Joint Coordinating Committee meeting

IV. SUGGESTIONS AND COMMENTS MADE BY THE TEAM

(1) Needless to say the project should be principally conducted by the Government of Bangladesh in technical collaboration with Japanese government. Therefore, Bangladesh side should consider sustainability of the Project from the beginning stage by means of obtaining the revenue budget for running the state enterprise.

(2) The allocation of necessary budget and counterpart personnel to the project should be completed before the start of the project. Therefore, the budget for local cost should be acquired and counterpart personnel should be assigned to each project activity.

(3) Taking system and facilities of BLRI into consideration, the Team considered it appropriate BLRI should be the Project site. In order to disseminate the transferred techniques to small scale farmers, close collaboration of DLS with BLRI is indispensable for the smooth implementation of the Project.

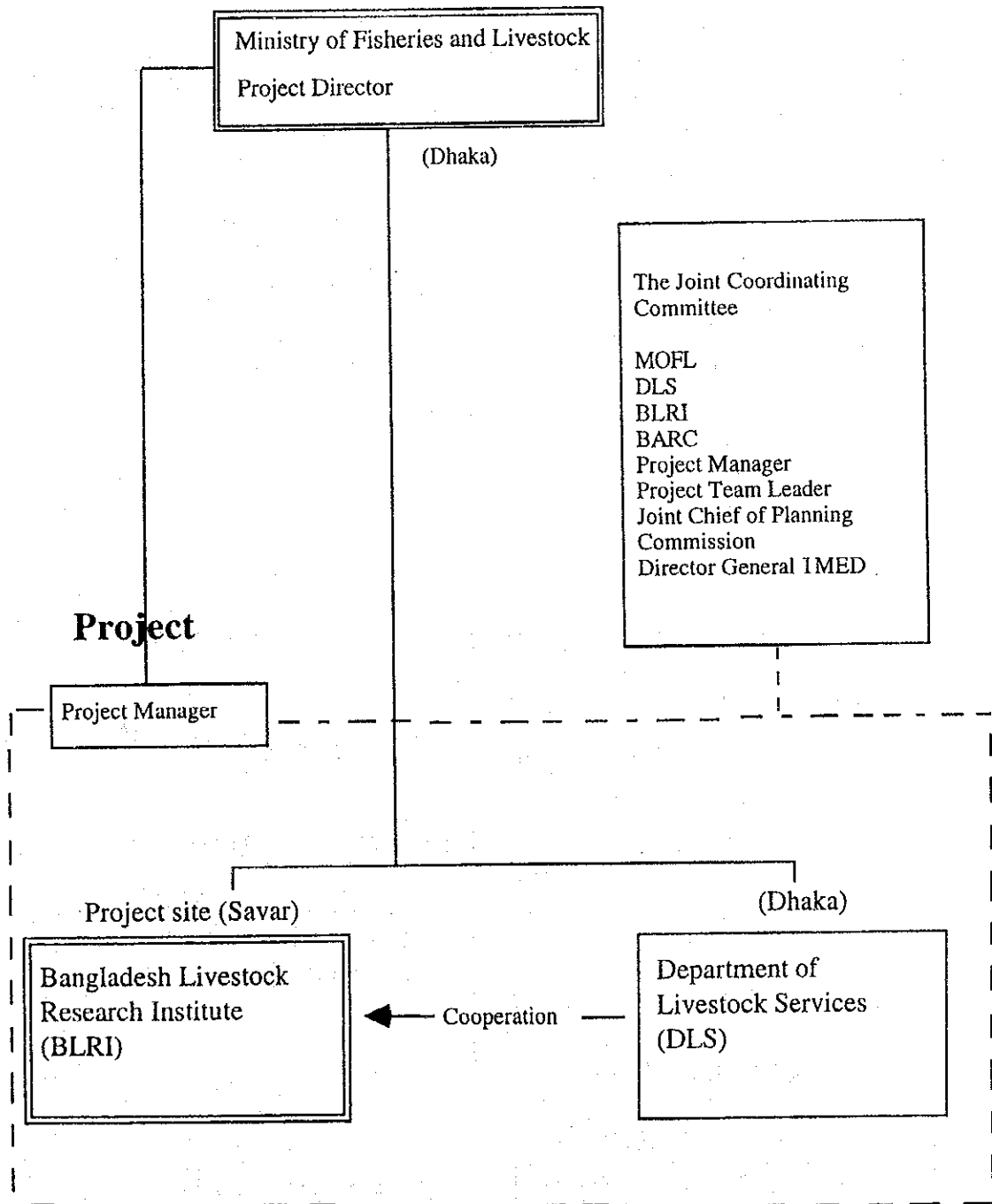
(4) The appropriate technology of Feeding management and Poultry infectious diseases prevention should be transferred to DLS through BLRI under the Project activities. Furthermore, it is necessary to designate some poultry farmers as model farmers so that practical technology developed by BLRI will be disseminated to rural women through them.

(5) The Team is of the view that the dispatch of long-term survey members by JICA is necessary :

- a. to prepare the detailed cooperative activities which will be conducted in the Project site
- b. to prepare the detailed plans for provision of equipment to the Project
- c. to confirm the Project Implementation System in Bangladesh side
- d. and to examine the necessity of the relevant facility construction.

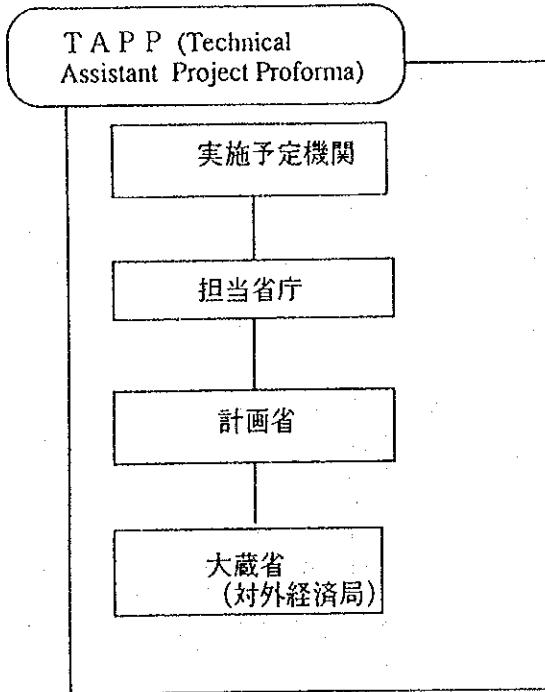
(6) The Team Suggested the Bangladesh side should make an utmost effort to build a facility for the project activities and its training unit in order to install the equipment and instruments.

Chart of the Project



3. 援助受入れ制度(国内承認手続き)

1. 「技協プロジェクト実施計画」の場合 日本の技協に相当

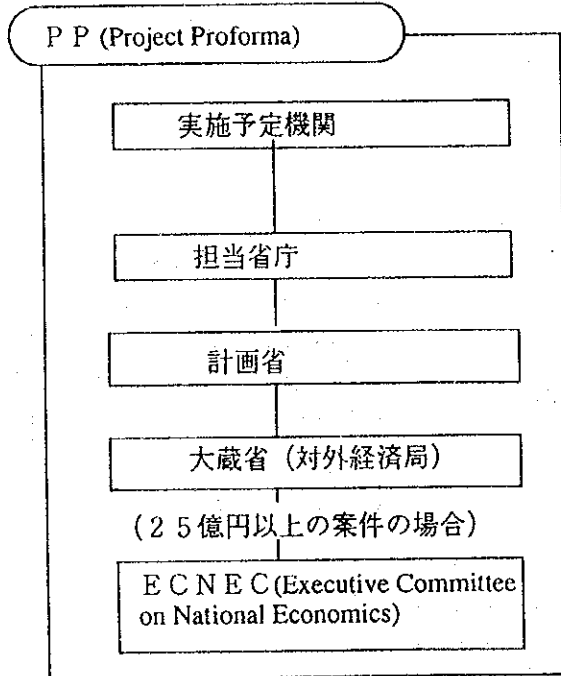


- 1) 基本的に施設整備の部分を除いた案件
- 2) 但し、小規模の施設整備はプロジェクト総額の25%以内であればTAPPでの対応も可能

Note: 計画書の具体的内容

- 1) プロジェクトの目的、内容、必要性
- 2) 財政計画 (自国負担分と援助分)
- 3) 機材等の経費
- 4) 職員配置計画

2. 「(投資) プロジェクト実施計画」の場合 日本の無償に相当

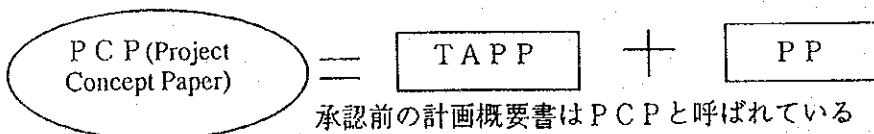


- 1) 技術協力に加え建物の建設などの施設整備を伴う場合

Note: 計画書の具体的内容

- 1) プロジェクトの目的、内容、必要性
- 2) 財政計画 (自国負担分と援助分)
- 3) 施設・機材等の経費
- 4) 職員配置計画

議長は首相及び大蔵大臣



4. 利用可能な既存施設

利用可能な既存施設 (BLRI)

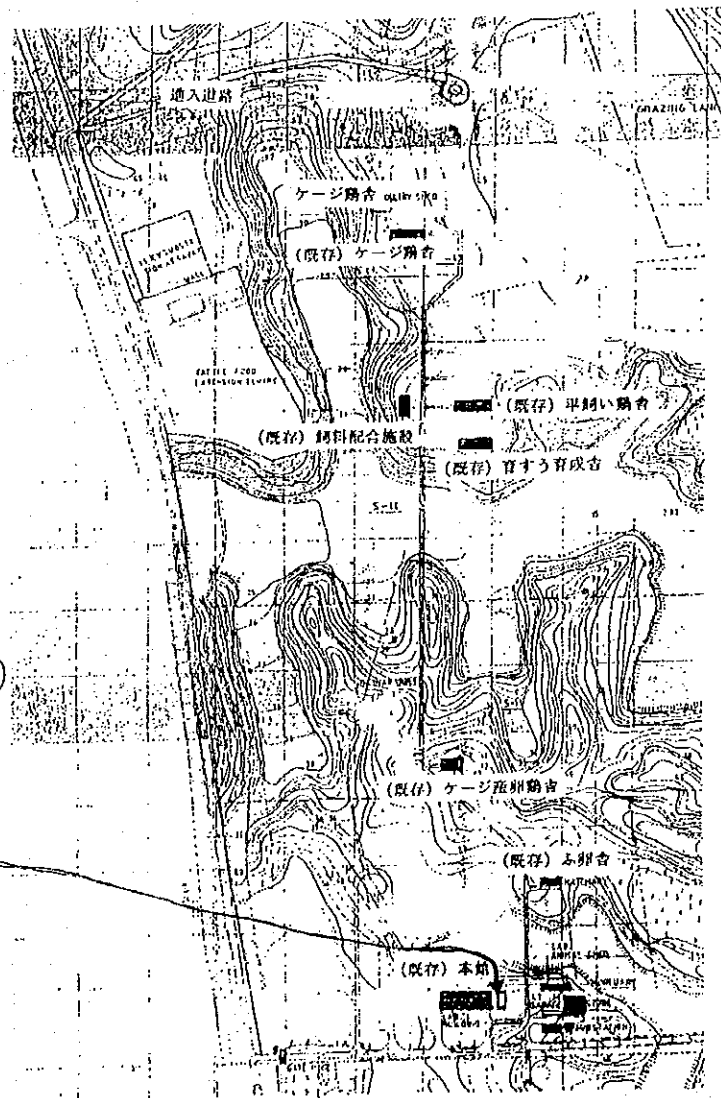
施設名	長さ×幅	現在の状況
本館、家禽生産研究室	7×5	JICA専門家が占有
ふ卵舎	20×7	ふ卵機室、貯卵室、職員個室(2)
鶏舎No. 1	20×7	家禽の育すう・育成
育すう・育成舎	20×7	建設中(70%完成)
鶏舎No. 2	30×7	平飼い成鶏舎、鶏、和紅鳥、ヌー、ブレイ-肥育
飼料貯蔵・配合場	20×7	建設中(70%完成)
鶏舎No. 3	30×7	ケージ成鶏舎、地鶏、各種の産卵能力試験
発電室	10×10	飼料原料の貯蔵、飼料配合、飼料貯蔵・配合場の完成にともなって移転予定。その後は食鳥処理試験施設を置く予定

参考：成鶏の収容能力は全体で1500羽程度

放し飼いは獣害や盗難のため非常に困難

時間はかかるとしてもバ側負担による将来の鶏舎建設の可能性はある。

BLRI敷地

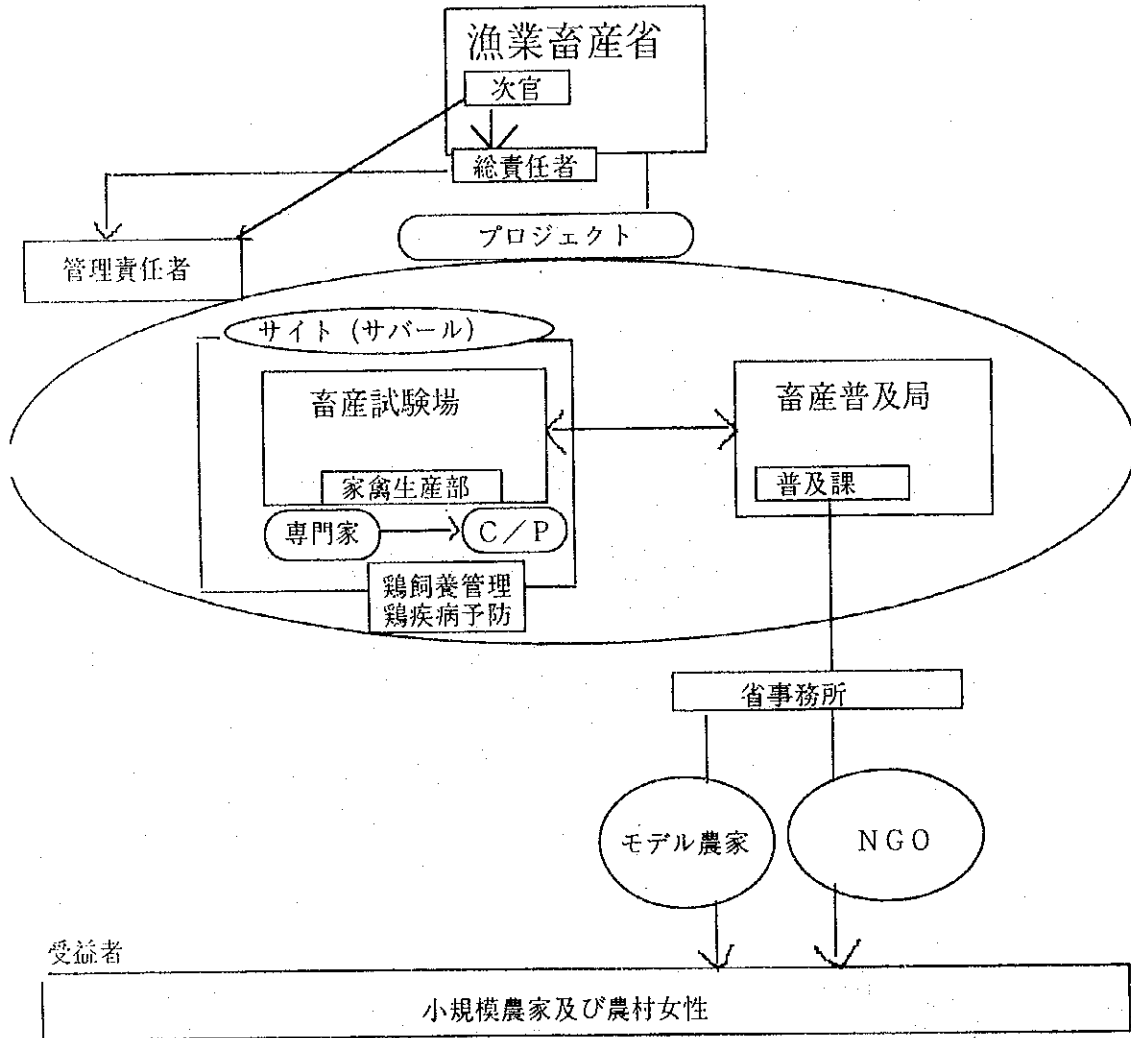


BLRI プロジェ外棟内に
今後実施し得る施設

- ・別棟 家禽生産室 (プロジェクト外)
 - ・研修室 (15~25名程度)
- (上記は同棟内)

本施設はバ側にて準備
する予定 (95年10月現在)

5. プロジェクト概念図



JICA