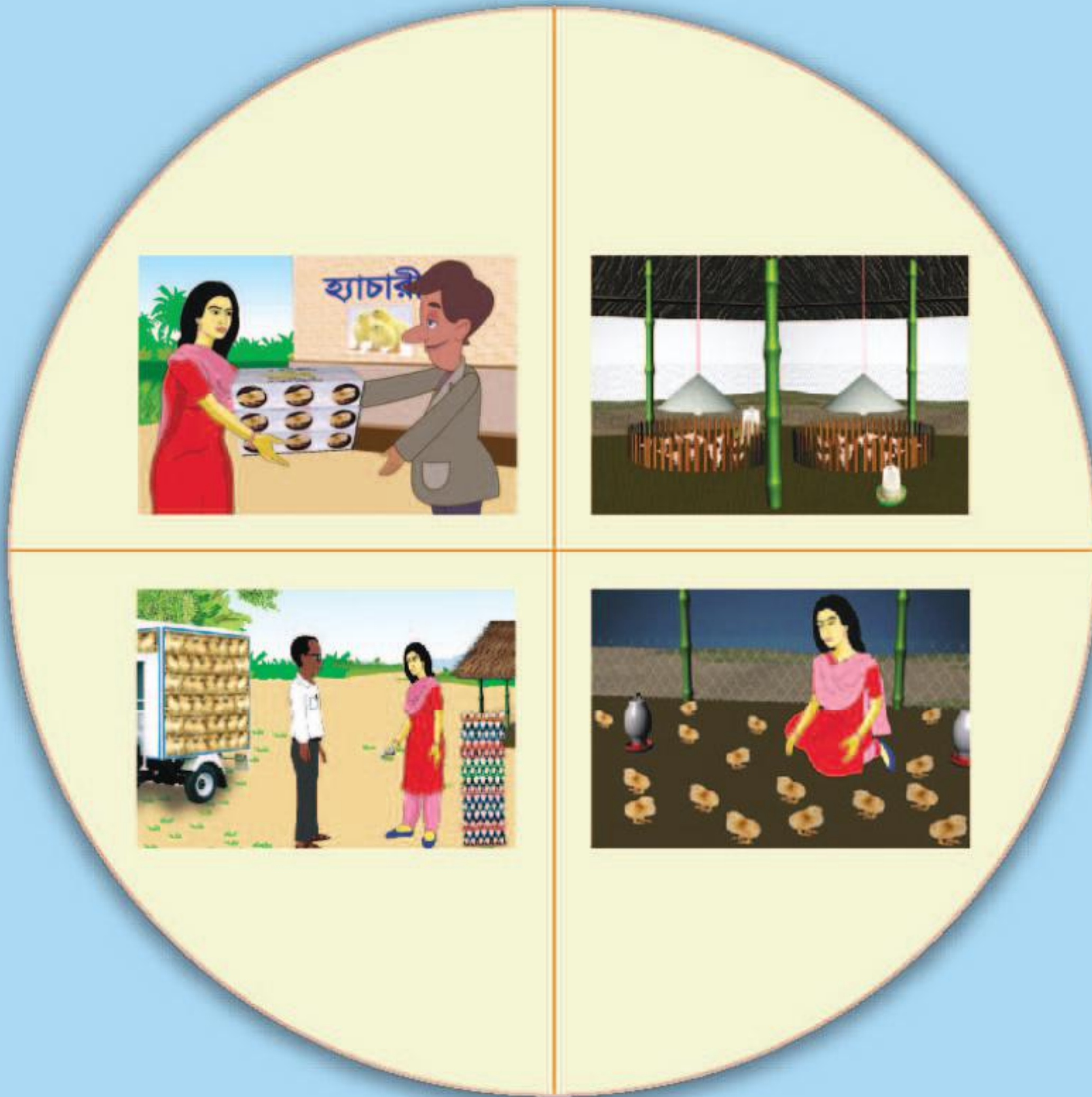




Poultry Rearing



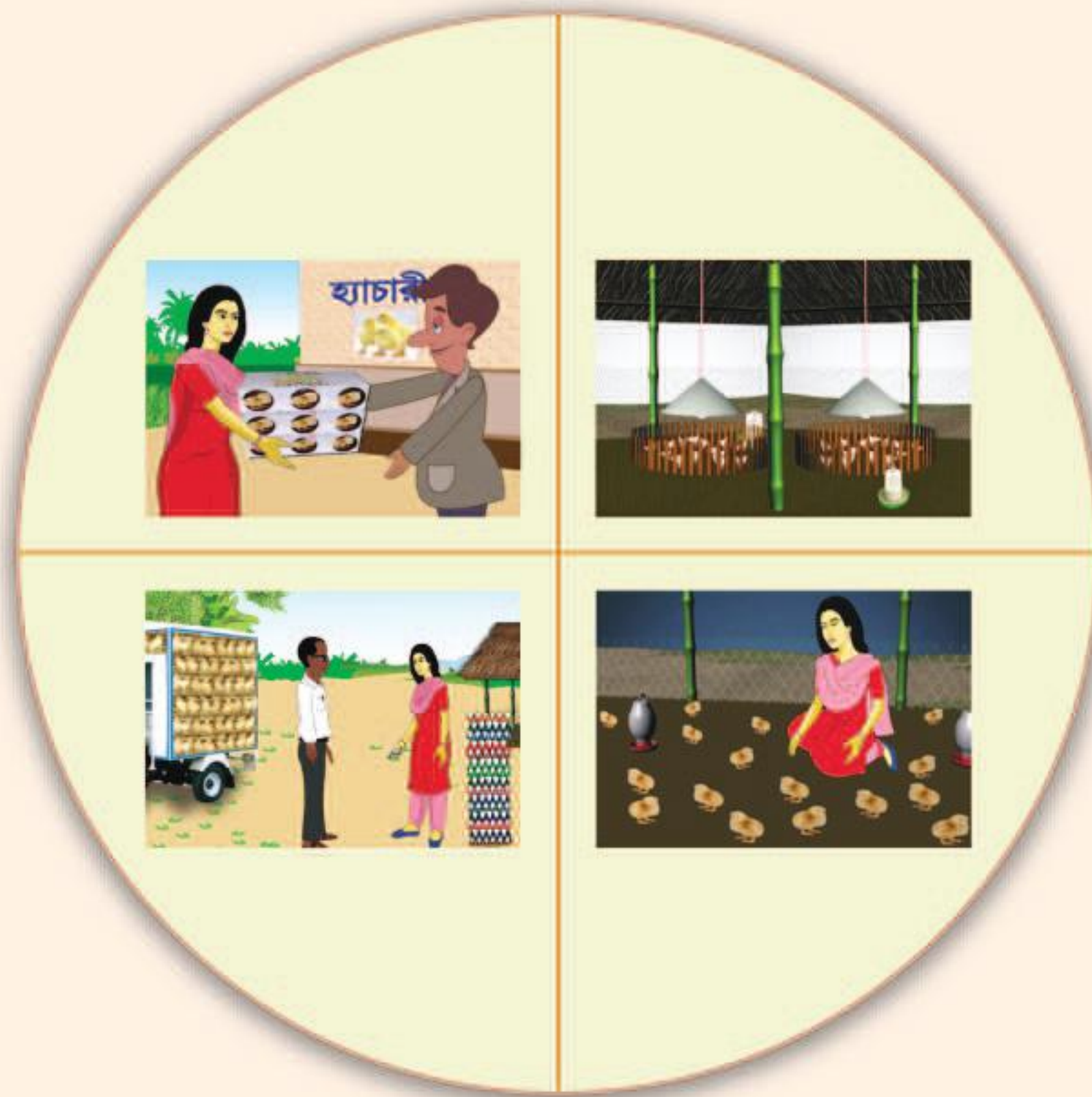
Dhaka Ahsania Mission
Commonwealth of Learning





Learning material for the enhancement of livelihood skills for
people with limited reading skills

Poultry Rearing



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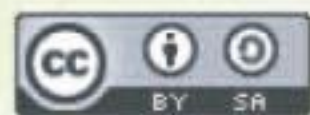
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Preface

Bangladesh is a country of enormous possibility. Yet, the majority of its people live in poverty, suffering from malnutrition, unemployment, superstition and many other forms of deprivation including natural disasters. Development workers, however, think that this situation can be changed by providing people with education and enhanced skills for livelihoods.

With this prospect in mind, Dhaka Ahsania Mission (DAM), since the early onsets of its development drive has focused on education, and has operated various non-formal education programs for different groups of people. DAM has taken up the initiative to impart skills development training to those people and thus create a pool of human resource. Considering the prime tool to execute all these activities, DAM has consistently prepared education materials of various types and merit as per the needs of different groups of people for their basic and continued education. Presently, Dhaka Ahsania Mission has, to its credit, more than 400 basic and continuing education materials of different titles.

In line with the previous publications, during 2003 - 2004, DAM developed a series of 21 books on skills enhancement and income generating activities. Later, in 2009, three more materials were developed for the workers in the Ready Made Garments (RMG) sector. Basing on that experience, DAM's 'Center for International Education and Development' (CINED) has taken an initiative to develop one more series of livelihood skills enhancement education material with the heading '**let's work and build our lives**'. In this series, 5 booklets have been developed on 5 different topics. Each book in this series is complemented with an animation video. The users of these booklets will benefit from the videos as they can better understand the learning content after watching the videos alongside reading the booklets.

A list of competences that the learners would achieve after reading this booklet has been given at the end of this book. The organizations that are providing training on skills development will play an effective role in imparting competency-based training to the informal sector using the booklets and animated videos of this series. We hope that these materials will be used extensively in the topic-based training of the post-literacy and continued education activities under the non-formal education programs.

The booklet '**Poultry Rearing**' is one of the five books in this series. The other booklets in this series are: Flower Gardening, Vermi Compost, Batik Print and Nursery. The booklet '**Poultry Rearing**' contains easy to understand language about the methods of rearing poultry, how to market and sell it.

Chief Executive Officer of CINED, Mr. Shahnewaz Khan, has responsible for the overall coordination of the planning and development of the booklets and the animation videos. "I would like to convey my gratitude and thanks to all who were involved in the development of this booklet. We are sincerely grateful to Commonwealth of Learning (COL) for their generous financial assistance in the development of this series."

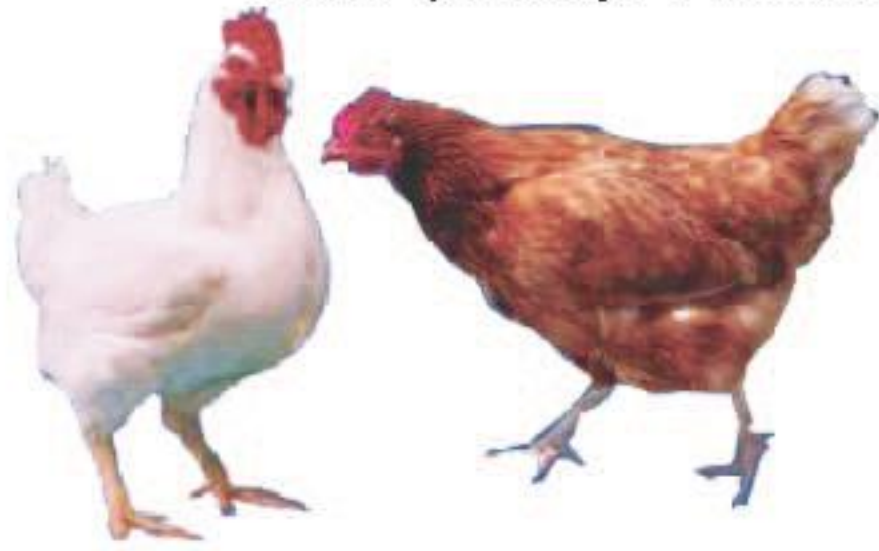
We believe that, after reading these booklets, watching the animated videos and using the information, innumerable number of unemployed women and men would be able to build their home-based small businesses. As a result, their quality of their life will be improved, and they can contribute effectively to the process of national development. We would consider, with due importance, any suggestion from you regarding the booklets and the animation videos of this series while publishing the next edition.

December, 2012

Kazi Rafiqul Alam
President
Dhaka Ahsania Mission

Poultry Rearing

Bangladesh is a country of thousands of villages. In these villages, almost every household rears poultry. Women usually take up this job to make ends meet for their families.



Many women make up for their household expenditures by selling eggs and poultries. Chicken meat satisfies our protein needs. The poultry excreta and bone dust are used as fertilizer in our crop fields. Poultry feathers are used to make dusters to sweep off fine dust. Also, the poultry entrails are used as food for the fish stocks.

Many people in the villages rear poultry in their houses to meet up their family's protein needs. However the need of the entire country cannot be met by small scale production. Many people in the villages and in the towns are now setting up poultry farms as a business. We can build such farms either in our own houses or at a nearby place.

Why build a poultry farm?

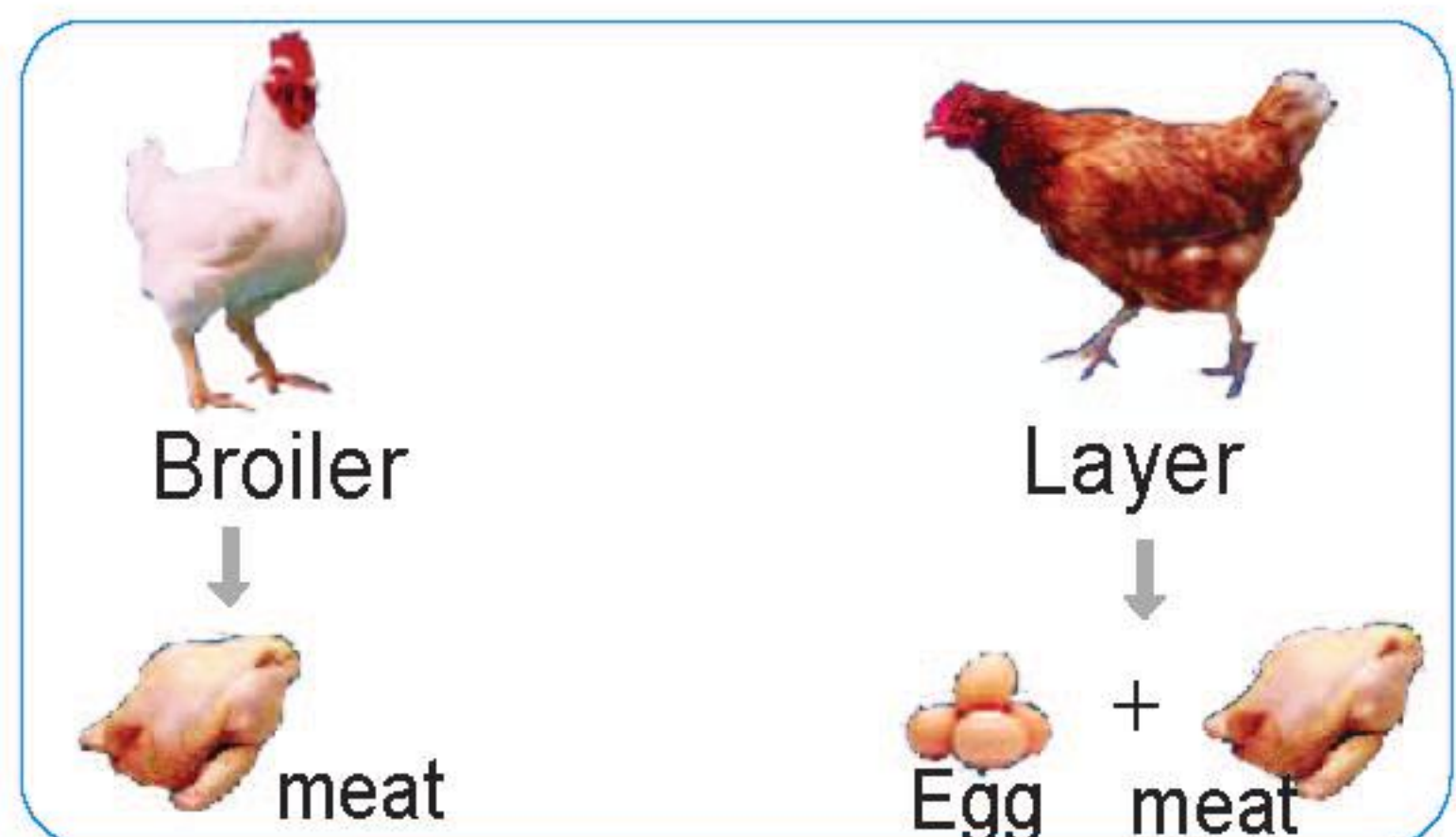
There are many advantages of establishing a poultry farm. For example:

- Poultries can be produced within a few days and with less effort.
- People's demand for protein can be met.
- Return on investment comes back within one and half to three months only.
- A start up capital of only 25 to 30 thousand taka is enough to start this business.
- A tiny piece of land measuring 20 ft x 10 ft is enough to rear 100 - 150 poultry.
- A family can operate a poultry farm.
- Apart from chickens and eggs, poultry excreta can also be sold as fertilizer.

We can consider poultry farming on a commercial basis for all these benefits.

Types of poultry birds

There are two types of poultry birds that are commonly found at poultry farms- Broilers and Layers. Broilers are usually reared for meat and Layers for eggs.



Things to know before starting a poultry farm

We must know a few things before rearing poultry. These are: 1. Materials necessary to rear poultries; 2. Construction of poultry house; 3. Chick collection; 4. Poultry feeds; 5. Poultry diseases; and 6. Care and management of poultry birds. All these have been discussed in details in the following chapters.

Materials those are required before starting poultry rearing

Materials necessary to rear poultries Two categories of materials are required in poultry rearing. They are - Fixed materials and Current or variable materials

1. Fixed materials

Materials that can be used for a few consecutive years once they are obtained or collected are called fixed materials. Let us now learn the names and amounts of fixed materials that we will need.

List of fixed materials



These materials are available at bazaars or makeshift bazaars located at the district or sub-district towns. At current market value, the approximate price of the materials is Tk. 17, 400. Over all the approximate expenditure for building a farm house would be Tk. 12,000.

2. Current or variable materials

Aside from the fixed materials, many other materials are also needed for production. These materials should only be bought or collected when they are needed. Such materials that are needed only during the actual production process are called current or variable materials. We will now learn the names of current or variable materials.

List of current or variable materials



These materials are available at bazaars and makeshift bazaars at district and sub-district towns. Tentative price of these materials would be Tk. 800.

Construction of poultry house

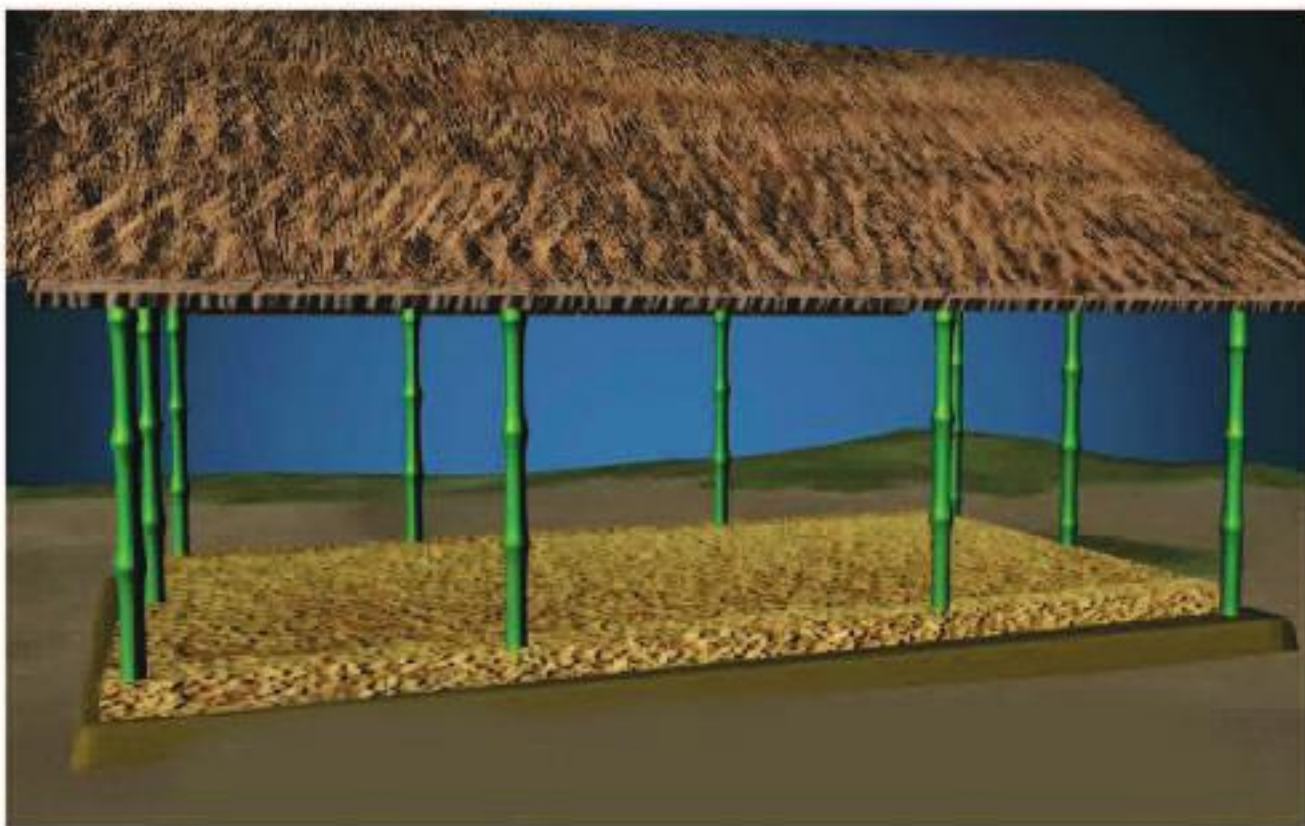
The place where the poultries live should be comfortable. To ensure this you have thatch a hut with two slanting roofs. You can erect this hut either inside your house's courtyard or somewhere beside your house. A hut of 20 ft in length and 10 ft in breadth would suffice. The deck or the floor should be leveled properly to a height of one and half to two feet from the ground.



The hut can be erected using bamboo or wooden planks. Earth or bricks can be used for structure. But it is better to build the hut with thick bamboo woven mats, as it will lower the costs of building the farm. You should bear in mind that the hut should be east - west in direction in length, and south or east faced. This will ensure maximum sunlight and airflow inside the hut. The hut should be seven and half to eight feet in height. Once the structure is completed, the hut needs to be covered with one and half to three feet high barbwire. This will keep dogs, cats, mongooses, civet cats or foxes away. During rain and cold the hut needs to be covered by thick curtains to protect the poultry birds both from cold winters and rainwater. Typically, a broiler birds occupies 1.2 sq ft and layers 1.7 sq ft space. So in 200 sq ft, 150 -170 broilers and 120 -125 layers can be easily reared.

Constructing the deck or floor of the poultry house

Create the base of the floor with 4 to 5 sacks of paddy husk. Spread the paddy husk onto the floor



and level it to 2 - 3 inches thick. This method is called Litter Method. This method will ensure that the poultry excreta do not adhere to the floor. Initially, the floor should be prepared only with paddy husk and kept like that up to 10 - 15 days. After 15 days, apart from paddy husk, you can also use wood dust to prepare the floor. If the Litter gets saturated by poultry excreta, you have to daub 2 kg lime on it, or turn the Litter

upside down. The Litter should be turned upside down twice or thrice a week with the help of a spade or shovel. However, if a part of the Litter begins to reek or hardens as a result of being clogged by poultry excreta, that portion is no longer usable and you have to throw it away. You have to mix new Litter with the old one, if the old one it is still useable. If not, you have to make new Litter. You have to make new Litter every 6 to 7 months.

Collecting Chicks

You cannot make a good profit unless the chicks are of a good kind. Hence you have to make sure to collect the good variety of chicks. Tips on chicks collection are:

- For meat, you have to collect 1 day old chicks of broiler variety.
- For eggs, you have to collect 1 day old chicks of layer variety.
- Buy chicks that are supplied by a good company.
- You should know whether the chicks are vaccinated or not.



Poultry feed

Poultry birds eat different types of feeds. A poultry bird usually takes 100 grams of feed per day. Poultry feeds contain wheat, maize, rice particle, rice bran, wheat husk, sesame oil cake, crushed dried fish, oyster, crushed snail and salt. These are mixed and sold in the bazaar as poultry feed, and can be purchased in kilograms. There are three types of poultry feeds that are available in the market. Those are starter, grower and finisher. But one can prepare poultry feed at home also if she or he has the training to do so. If the feed is prepared at home, the cost of buying poultry feed comes down to a great extent.



Diseases of poultry birds

Poultres are affected by various types of diseases. Amongst these diseases, Ranikhet, pox, blood dysentery, cholera, bird flu etc are notable. Poultries may die if they are affected by these diseases. Hence you must always be very careful. You have to learn about poultry diseases and their symptoms and take immediate measures when your poultries are affected. Poultry diseases and their symptoms are shown in a table on the next page.

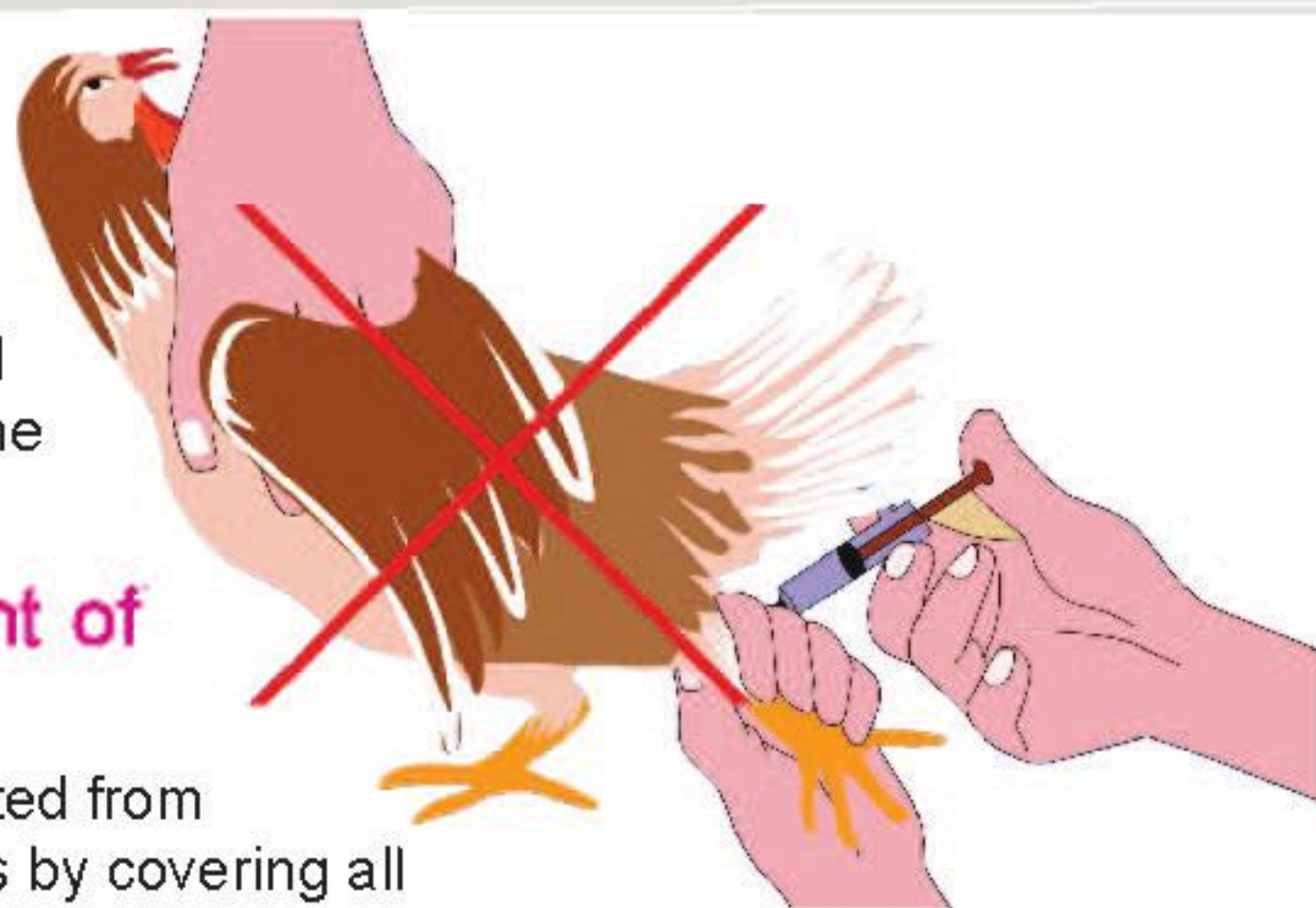


Poultry diseases and their symptoms

Name of diseases	Symptoms of diseases
<p>Ranikhet</p>	<ul style="list-style-type: none"> - Poultry birds become drowsy; they keep their eyes closed and their necks turned back Poultry birds defecates whitish or greenish loose stools. Sometimes they contain blood stains. - They suffer from respiratory troubles and breathe with their mouths open. They make purring noise and salivate. - Their bodies shiver, and their wings stay bogged down. The birds drowse in sitting position and have runny noses. - They take less food and water.
<p>Pox</p>	<ul style="list-style-type: none"> - Poultry birds have fever. - Poultry birds have red spots under their wings and around their faces. The spots get larger and take lentil-like shapes. - Blisters and cocoons are seen on the birds' eyes. Tears keep rolling from their eyes and their eyelids are swollen. - Cocoons appear in their trachea and they have difficulty breathing.
<p>Cholera</p>	<ul style="list-style-type: none"> - Poultry birds defecates yellowish or greenish excreta - Poultry birds have fever. - Their wings are bogged down. - Saliva comes out of their mouth. - Crest on their head and their ear turns bluish.
<p>Blood dysentery or coxidirosis</p>	<ul style="list-style-type: none"> - Blood can be seen in their loose foamy excreta. - Poultry birds drowse and make sound. - Stops taking food and water.
<p>Bird flu</p>	<ul style="list-style-type: none"> - Poultry birds die suddenly without having any symptoms. Within 2 - 3 days, 90 to 100 percent poultry bird can die. But, sometimes, the symptoms mentioned below can be seen: - Poultry birds sneeze and cough. Cold mucus may come out from their noses. - Liquid greenish excreta. - Food intake decreases. - Eyelids and head can become swollen. - Poultry bird's body can shivers, wings bogged down, and their head and neck can bend.



If any of the symptoms appears in the poultry birds, you have to consult a local veterinary doctor immediately. You have to treat the diseases as per the doctor's advice. Poultry birds have to be vaccinated regularly. You also have to quarantine the affected poultry birds immediately.



Caring methods and management of poultry birds

- Poultry birds and chicks have to be protected from cold weather during winter. You can do this by covering all sides of the hut with curtains made from gunny bags.
- You have to facilitate air passage in the poultry house during summer.
- You should not give the poultry bird stale or rotten food.
- Clean water should always be served in the water pots.
- You should not vaccinate the sick poultry birds.
- You should vaccinate the poultry birds in the morning or in the evening. You have to complete the vaccination within an hour.
- If the poultry birds peck at one another, you have to sever their beaks while their age is between 7 to 8 days. You have to use a sharp knife, blade or special pliers to sever their beaks. This job should only be done only by a skilled person.

Cautionary notes-

- You have to bury the dead poultry birds.
- You should not enter into the poultry farmhouse wearing footwear that is used at home. Separate footwear should be used inside the farmhouse.
- You have to enter into the poultry farm house after washing your hands and feet, tying your hair and changing your clothes.
- You have to wash your hands, feet and face again after leaving the farm house.
- To save the poultries from the disturbances of rats, you have to apply rat poison regularly on all sides of the farm house.



Broiler rearing



Broilers are 6 to 8 weeks old chicken with tender body meat. Broilers are reared to obtain meat. Their bodies are usually fleshy and soft. Their bones are soft and weak, and their skin usually smooth. They weigh one and half kg to three kg at the age of 8 weeks. The broiler chickens can be sold when they are 35 days old. This is one of the reasons why people are taking more and more interest in farming broiler chicken nowadays.

Steps of broiler poultry rearing

Chick collection

Collect 1 day old chicks from different farms located in the district or sub-district towns. A chick produced by a good company can be bought at a price of Tk. 40 to Tk. 45. Bring home the chicks carefully and release them into the poultry house.



Chick brooding

Rearing chicks in a temperature controlled environment and providing them food and water is called brooding. To brood, buy 1 day old chicks from a poultry farm or hatchery. You have to brood the chicks for 3 - 4 weeks after bringing them in. Hang two 100-watt electric bulbs from the ceiling of the farm house to brood 100 chicks.



Suspend the light bulbs at a height of one foot or one and half feet from the floor. Attach a hood around the bulbs. Erect railings to make sure that the chicks cannot go beyond the controlled temperate zone. Keep the food trays and water pots at different places in the hut. But you must have to put them in the controlled zone. Brood the broiler poultry chicks as per the guidelines mentioned below. You have to control the

temperature of the brooder after observing the chick behavior.

Brooding of broiler poultry chicks

Age of the chicks	Temperature of the hut	Feed and water	Litter management
1 - 13 days	33 degrees Celsius	Give 'starter' type broiler poultry feed. Fill one third (1/3) of the small chick tray with food and one third (1/3) of the small water pot with fresh water.	The Litter made by paddy husk has to be scrubbed every day after the first week passes.
14 - 20 days	30 degrees Celsius	Following the proportion instruction above, give 'grower' type broiler poultry feed 4 - 5 times a day in the large chick trays and pour water into the large water pots.	
21 - 45 days	28 degrees Celsius	Similarly, give 'finisher' type broiler poultry feed 4 - 5 times a day in the large chick trays and pour water into the large water pots.	

Usage of light in rearing broiler poultry birds

The use of light in rearing poultry is very important. It is very important to learn how much time you have to keep a chick in light.

Time for keeping broiler poultry birds in light

Age	Daily exposure to light
1 – 3 days	24 hours
4 – 7 days	23 hours
8 – 14 days	20 hours
15 – 21 days	16 hours
More than 21 days	Darkness will prevail at night

Poultry feed

A poultry chick do not require any food up to 36 hours from its birth. You should give them only fresh water for the first 2 days. If necessary, a little glucose can be mixed with the water.

Spread 3 to 4 tin foils or mats at different places inside the hut and put 'starter' type of crushed food in them for the chicks to eat. . After the chicks are 4 - 6 days old, replace the tin foils or mats from the floor and give them food in the small chick tray. Accordingly, give them fresh water in small water pots. Five chick trays and 5 water pots should be enough to feed and hydrate 100 chicks. You have to give the poultry birds feed when they are 1 day to 45 days old as mentioned in the list. See the list in the next page.



Amount of poultry feed

Age of the chicks	Amount of feed for a day	Amount of feed for 7 days
1 – 7 days	23 grams	160 grams
8 –14 days	46 grams	320 grams
15– 21 days	74 rams	520 grams
22 – 28 days	120 grams	840 grams
29 – 35 days	131 grams	920 grams
36 – 45 days	170 grams	1 kg 190 grams

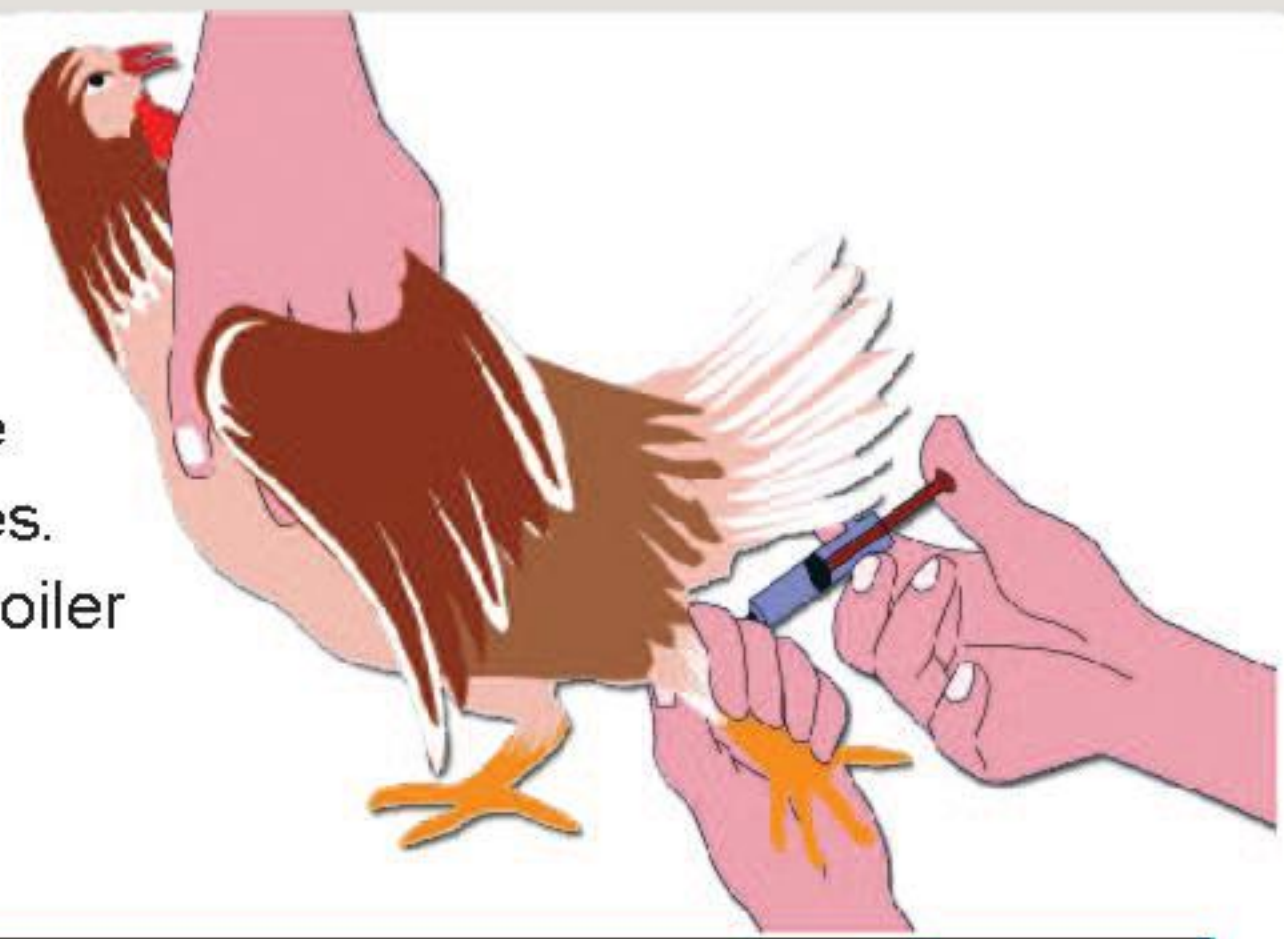
Amount of feed can differ depending on the species of poultry birds or the environment they live in. It would not be a problem if you give more feeds to the broiler chickens than their actual needs. In fact, they grow quicker due to the increased food intake.

Feed preparation for the broiler poultry birds

Feed ingredients	Starter feed (Kg)	Grower feed (Kg)	Finisher feed (Kg)
Crushed maize	35	40	42
Crushed wheat	12	14	10
Rice particles	10	10	10
Soybean	25	20	20
Dried fish	8	8	8
Sesame oil cake	9	7	9
Vitamin Primex	0.30	0.30	0.30
Amino acid	0.35	0.35	0.35
Salt	0.35	0.35	0.35
Total	100 Kg	100 Kg	100 Kg

Vaccination of poultry birds

You have to vaccinate the poultry birds as per scheduled time to keep them healthy. It is important to vaccinate them in time because the poultry birds can die if they are attacked by diseases. The guidelines and schedule for vaccinating the broiler poultry birds are shown below.



Age of the chicks	Name of the vaccines	Vaccination methods
5 days	IB + ND or <i>Ranikhet</i>	1 drop on the right eye after mixing with drinking water
12 days	IBD or Gambura	1 drop on the left eye after mixing with drinking water
17 days	IBD or Gambura	1 drop on the right eye after mixing with drinking water
21 days	IB + ND or <i>Ranikhet</i>	1 drop on the left eye after mixing with drinking water

Each vaccine bottle has a label where the vaccination methods are clearly written. You have to follow those instructions while vaccinating your poultry birds. But make sure to consult your local veterinary doctor before vaccinating your birds.

Selling poultry birds

You have to make arrangements for selling your poultry birds in the bazaars, while they are still at your farm. There is a huge demand for chickens in your own or other localities, hamlets and villages, as well as in the bazaars, either small or big, located at the district or sub-district towns. You can supply your poultry birds in those markets for sales after putting them in baskets. Apart from that, you can sell your poultry birds to the village traders at a wholesale price. This is convenient as you no longer need to carry the poultry birds to the bazaars. This also saves some expense.



Profit from poultry rearing

Profit can be calculated by deducting the costs incurred by the activity from the revenue generated from it. You can make a profit of Tk. 9,720 in 2 months by rearing 100 broilers. A tentative income expenditure account has been provided in the following page.

Fixed cost

As we know from before, the approximated price of the fixed materials needed to rear 100 poultry birds is Tk. 17,400. If we consider 20 percent depreciation of the materials per year, the cost of fixed materials in a year is	Tk. 500
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Current or variable cost

Chick purchase (110 chicks @ Tk. 40 per chick)	Tk. 4,400
Feed purchase (2 month's feed @ Tk. 7,000 per month)	Tk. 14,000
Medicine purchase (2 month's medicine @ Tk. 1,000 per month)	Tk. 2,000
Wood dust, paddy husk etc purchase	Tk. 800
Total current or variable cost	Tk. 21,200

Total cost

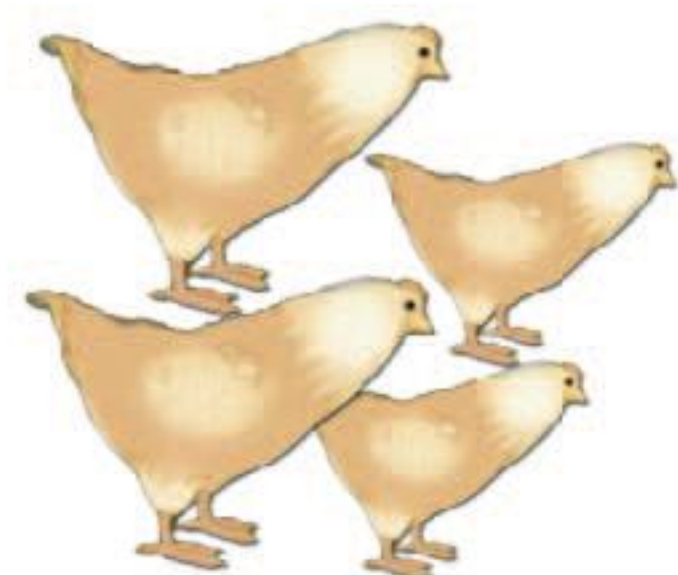
Current or variable cost	Tk. 21,200
Fixed cost	Tk. 580
Total cost	Tk. 21,780

Profit

Sales of poultry birds (225 kg chickens @ Tk. 140 per Kg)	Tk. 31,500
Total cost (fixed and current or variable cost)	Tk. 21,780
Profit from rearing poultry in 2 months	Tk. 9,720

You have to change the Litter once all the poultry birds are sold, within 50 days. If the old Litter seems usable, then mix lime with it and dry it in sunlight. You have to wash the wall mat using a mixture of water and phenyl. All the materials have to be disinfected before they are used again. The poultry house should be kept vacant for 10 - 15 days at least.

Layer rearing



The poultry birds that are reared to produce eggs are called layers. Layer poultries begin laying eggs when they are 20 weeks or 5 months old. This poultry bird lays eggs for a year or more at a stretch. The layer birds have different names at different stages of their age. For e.g. a layer poultry bird is called a chick when they are 1 - 8 weeks old, grower when their age is 9 - 18 weeks old and layers when they cross the 18 - 19 weeks old margin. That is when they begin to lay eggs.

Steps of rearing layer poultry

Chick collection: Collect the chicks from the farms in the same way broilers chicks are collected.

Chick brooding: Brood the chicks for 28 - 35 days in the same way as broilers chicks.

Use of light in rearing layer poultry birds

It is very important to use light to produce poultry eggs. For this, you have to know in details how much exposure to light layers at different ages need.

Age	Daily exposure to light
1 – 3 days	24 hours
4 – 14 days	23 hours
15 – 22 days	22 hours
3 – 4 weeks	18 hours
5 – 6 weeks	15 hours
6 – 7 weeks	12 hours
8 – 19 weeks	Darkness will prevail at night
19 – 23 weeks	13 hours
23 – 27 weeks	14 hours and 30 minutes
More than 27 weeks	16 hours

Poultry feed for layers

Feed a layer poultry chick up to 45 days accordingly to the method applied for broiler chick. First the 'starter', then the 'grower' and finally the 'finisher'. Gradually, you can increase the amount of feed. Mix crushed oyster with the principal poultry feed and feed it to the layers 4 - 5 times a day. Layers begin to lay eggs when they are 20 weeks old. At the onset of laying eggs, i.e. 4- 5 days before they lay eggs, their food consumption decreases. However, once they begin to lay eggs their food consumption increases again.



You must not give excess food to the layer poultry birds than that mentioned in the chart below. If you do so, they will lay fewer eggs. It would be better if you divide the food amount mentioned below in 3 equal parts and give the layers each part 3 times a day.

Age of the chicks (week)	Weight of the layer poultries	Production of eggs (100 layers)	Amount of feed per day (Gram)
21 – 22	1 kg 200 gram – 1 kg 600 gram	35	85 – 95
23 –27	1 kg 200 gram – 1 kg 800 gram	75	90 – 100
28 –32	1 kg 400 gram – 1 kg 800 gram	93	93 – 103
33 – 40	1 kg 400 gram – 2 kg	92	96 – 104
41 – 50	1 kg 400 gram – 2 kg 50 gram	90	104 – 116
51 – 60	1 kg 400 gram – 2 kg 200 gram	88	104 – 116
61 or more than 61	1 kg 200 gram – 2 kg 200 gram	75	104 – 116

Feed preparation for layer poultry birds

You can prepare the feed for the layers on your own by following the below mentioned rules. But you should consult your local veterinary doctor if you opt to make feed for your layers.



Feed ingredients	1 – 20 weeks (Kg)	21 – 40 week (Kg)	41 week, or More (Kg)
Crushed maize	40	34	52
Crushed wheat	10	20	-
Rice particles	15	15	15
Soybean meal	13	11	9
Sesame oil cake	5	-	5
Bone meal / Fish meal / Crushed dried fish	8	8	9
Crushed oyster	5	7	8
Fish oil	2.25	3.25	2.25
Salt	0.25	0.25	0.25
Amino acid	0.25	0.25	0.25
Vitamin Primex	0.25	0.25	0.25
Total	100 Kg	100 Kg	100 Kg

Vaccination of poultry birds

You have to vaccinate the poultry birds and chicks at different times, and following different methods. This is essential to increase your poultry birds' immunity and to keep them healthy. Shown below are the names and methods of vaccinating poultry birds. This table is intended for your primary knowledge and understanding of the vaccination of poultry birds. Every vaccine bottles have labels whereon details of the vaccines and their usage are elaborated. You have to follow the instructions strictly.

Age of the chicks	Name of the diseases	Name of the vaccines	Vaccination methods
1 day	Marex	Marex vaccine	Injection beneath the skin on the neck
2 days	Gambura	Gambura vaccine	1 drop in 1 eye
3 – 5 days	Ranikhet	BCRDV	1 drop in 1 eye, one drop in one nostril
7 day	Infectious bronchitis	IB	1 drop on 1 eye
10 – 14 days	Gambura	Gambura vaccine	1 drop on 1 eye
21 – 24 days	Ranikhet	BCRDV	1 drop in 1 eye, one drop in one nostril
24 – 28 days	Gambura	Gambura vaccine	1 drop on 1 eye
35 days	Pox	Foul Pox vaccine	Injection beneath the skin on the neck
60 days	Ranikhet	RDV	Injection in the thigh meat
80 – 85 days	Cholera	Foul Cholera vaccine	Injection in the thigh meat
110 – 115 days	Cholera	Foul Cholera vaccine	Injection in the thigh meat
130 – 135 days	Infectious bronchitis	Integrated vaccine	Injection in the thigh meat

You must consult a veterinary doctor before vaccinating your poultry birds. If needed, you have to feed the layer poultry bird anti-worm medicines.

Egg production

A layer poultry bird lays eggs up to 32 weeks of her age. Amongst 100 layers, 85 of them, in average, lays an egg daily. But, depending on the environment and nutritious value of the feed given to them, they can lay more eggs. When the layers are 18 months old, they no longer lay eggs to the extent they used to before. Hence it is better to sell off the layers that are over 18 months old and bring in new layers to the farm.

Egg collection from the farm house

Layers may lay eggs either during the daytime or at night. During winter, collect the eggs in between 10 to 11 am in the morning and during 4 to half past 4 in the afternoon. You should not wash the eggs in water if it is littered. The eggs can rot quickly if you wash the eggs in water. So, you have to wipe the littered eggs with a thick cloth or with a brush. If you find the egg shells are not hard enough, you have to understand that your layers lack calcium and phosphorus. Therefore, you have to give your layers added calcium and phosphorus with its feeds.



Preservation of eggs

Egg preservation means preserving the quality of the eggs and preventing the eggs from getting rotten. Eggs remain in good health for 3 - 4 days during summer and 7 - 10 days during winter unaided. However, if the eggs are not sold off immediately after being laid, they need to be preserved and stored. You can preserve eggs in many ways, such as:

- Keep some husk or wood dust in an earthen or tin pot, and keep the eggs arranged neatly on it.
- Mix 1 kg of lime with 20 kg water and let the mixture stay for 10 minutes. Pour the water from the top in another pot, and keep the eggs submerged in the solution. Eggs can be kept safe up to 2 months in this way.
- Another method of preserving eggs is to submerge them in coconut, mustard or soybean oil for 1 minute. This will seal the tiny holes on the egg's shell. Store the eggs in another pot. Using this method, you can keep your eggs safe for 1 month.
- You can also preserve your eggs in a refrigerator. Keep the eggs in the lower chamber in a position so that the narrower part of the eggs remains downwards. If you have a regular electricity supply, your eggs will be safe for 2 months.

Sales and marketing of eggs

Egg trays can be easily purchased from the bazaars. You have to keep your eggs in the trays and place them in groups. You can place one tray on top of the other and stack about 5 - 6 trays. You can tie the stacks with a rope and carry your egg trays out for sale. You can sell eggs at your local bazaar, hotels, restaurants, or in your own hamlet and locality. You can also carry your eggs in baskets for sales. Many local traders collect eggs directly from farms. You can sell your eggs to those traders as well.



Profit from poultry rearing

We will now look at how much profit one can make from rearing 100 layer chickens for one and a half year. To make the profit and loss account of rearing layer poultry birds, we have to take into account all the expenditures incurred and the revenue generated from the activity. Layer birds start laying eggs when they are 5 months old, and lay eggs up to 12 - 13 months.

Profit can be found after deducting all relevant costs, incurred in the process of production, from the revenue achieved from selling the produced goods. The surplus amount is the profit. A profit of Tk.1, 71,680 can be made in one and half year from rearing 100 layers. A tentative income expenditure account has been provided in the following page.

Fixed cost

We know that the tentative price of fixed materials needed to rear 100 layer poultry birds is Tk. 17,400. If we consider 20 percent depreciation of the materials per year, the cost of fixed materials in a year is

Tk. 5,220

Current or variable cost

Chick purchase (120 chicks @ Tk. 40 per chick)	Tk. 4,800
Feed purchase (18 month's feed @ Tk. 4,000 per month)	Tk.72,000
Medicine purchase (18 month's medicine @ Tk. 1,000 per month)	Tk. 18,000
Wood dust, paddy husk etc purchase	Tk. 800
Total current or variable cost	Tk. 95,600

Total cost

Current or variable cost	Tk. 95,600
Fixed cost	Tk. 5,220
Total cost	Tk. 1,00,820

Total sales

Sales of eggs (31,025 eggs @ Tk. 8 per piece)	Tk. 2,48,200
layer birds sales (180 kg layer @ Tk. 135 per kg)	Tk. 24,300
Total sales	Tk. 2,72,500

Profit

Total sales	Tk. 2,72,500
Total cost (fixed and current or variable cost)	Tk. 1,00,820
Profit from layer poultry birds rearing in one and half year	Tk. 1,71,680

Conclusion

Poultry Rearing is a profitable business. You can make a handsome profit by investing just a little amount of money into this business. If you are rearing broiler poultry birds, the invested money returns after one and half months only. And in case of layer poultry birds, money from sales proceeds of eggs recovers investment in just 21 weeks. Anyone who is thinking of generating a good profit while investing a little money can think of building a poultry farm for rearing either layer or broilers. It is advisable to start with just a hundred poultries and gradually increases the number of birds. As the farm gets larger, the cost per unit starts to fall and profit increases. Many people are taking up this business these days because of its profitability.

Certain specific skills are needed to operate a poultry farm. Hence, you should be trained on poultry rearing before starting this business. You can also receive on the job training from a nearby farm owner, and then start the business. Many disease outbreaks may occur at your poultry farm. So, you have to be careful always. Maintaining regular contact with the local veterinary doctor is essential to save your poultry birds from getting diseased.

Achievable competence

After reading this book, the readers:

1. Would be able to say about the opportunities of the Poultry Rearing as a small business;
2. Would be able to say the names, amount and places of their availability and possible prices of the materials necessary to rear poultries.
3. Would be able to name the species of the poultry birds those are reared on a commercial basis.
4. Would be able to narrate the farm house building techniques for Poultry Rearing.
5. Would be able to narrate the preparation techniques of a Litter to rear poultries.
6. Would be able to explain the techniques of selecting and collecting the chicks.
7. Would be able to say what types of feeds are given to the poultries to eat and how much feed is given to which species at their what ages.
8. Would be able to explain about the types of poultry diseases, their symptoms and their remedies.
9. Would be able to say the names of various types of necessary vaccines and the application techniques of vaccines.
10. Would be able to narrate the techniques of poultry caring.
11. Would be able to say what precautionary measures have to be taken to rear poultries.
12. Would be able to say when and how much light exposure are needed for the broiler and layer chicks at their which age.
13. Would be able to explain the feed preparation procedures for both the broiler and layer poultry birds.
14. Would be able to narrate the sales and marketing procedures of both the broiler and layer poultry birds.
15. Would be able to narrate the possible income and expenditure accounts of both the broiler and layer poultry rearing.

Readers would be able to grasp the above mentioned competence more skillfully after watching the Poultry Rearing related animated video.



Learning material for the enhancement of livelihood skills for people with limited reading skills

