

# CLUSTER PROFILE

## AVICULTURE (BIRD FARMING) SECTOR OF PAKISTAN



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## 1 DESCRIPTION OF CLUSTER

### 1.1 Introduction, History & Background of Fancy birds Sector.

Bird, (class Aves), any of the more than 10,400 living species unique in having feathers, the major characteristic that distinguishes them from all other animals. A more-elaborate definition would note that they are warm-blooded vertebrates more related to reptiles than to mammals and that they have a four-chambered heart (as do mammals), forelimbs modified into wings (a trait shared with bats), a hard-shelled egg, and keen vision, the major sense they rely on for information about the environment. Their sense of smell is not highly developed, and auditory range is limited. Most birds are diurnal in habit. More than 1,000 extinct species have been identified from fossil remains. Various bird attributes, real or imagined, have led to their symbolic use in language as in art. Aesop's fables abound in bird characters. The Physiologus and its descendants, the bestiaries of the middle Ages, contain moralistic writings that use birds as symbols for conveying ideas.

Since earliest times birds have been not only a material but also a cultural resource. Bird figures were created by prehistoric humans in the Lascaux Grotto of France and have featured prominently in the mythology and literature of societies throughout the world. Long before ornithology was practiced as a science, interest in birds and the knowledge of them found expression in conversation and stories, which then crystallized into the records of general culture. Ancient Egyptian hieroglyphs and paintings, for example, include bird figures.

In modern times the recreational pleasures of bird-watching have grown in tandem with the rise of environmentalism. Evolving from the American and European "shoot-and-stuff" mania of the 19th century, bird-watching became a sport like activity based on rapid identification, the rarest being the most rewarding, with the aid of binoculars and spotting scopes. The change from shooting to sighting coincided with campaigns, beginning about 1900, to halt the slaughter of wild birds for food and millinery. Bird-watching was advanced by the publication of excellent field guides and improvements in photography and sound recording. By mid-century the watcher's enjoyable but rather unsophisticated tallying of "year lists" and "life lists" of species personally observed was being augmented, if not replaced, by interest in careful studies of bird behavior, migration, ecology, and the like. This trend was abetted by bird banding (called ringing in the United

Kingdom) and by such organizations as the British Trust for Ornithology and the National Audubon Society, which coordinate professional and amateur observations and efforts with scientific studies.

In addition to their importance in literature and legend, birds have been significant to human society in myriad ways. Birds and their eggs have been at least incidental sources of food for humans since their origin and still are in most societies. The eggs of some colonial seabirds, such as gulls, terns, and Murres, or guillemots, and the young of some mutton birds are even now harvested in large quantities. With the development of agrarian human cultures, several species of chickens, ducks, geese, and pigeons were taken in early and have been selectively bred into many varieties. These domestic birds are descended, respectively, from the red jungle fowl (*Gallus gallus*), mallard duck (*Anas platyrhynchos*), Graylag geese (*Anser*), and rock dove (*Columba livia*). After the discovery of the New World, the turkey (*Meleagris gallopavo*), which had already been domesticated by the Indians, and the Muscovy duck (*Cairina moschata*) were brought to Europe and produced several varieties. Guinea fowl (*Numida meleagris*) from Africa were also widely exported and kept not only for food but also because they are noisy when alarmed, thus warning of the approach of intruders.

Besides being a food source, pigeons have long been bred and trained for carrying messages, their wartime use dating to the Roman era, according to Pliny the Elder. Messenger pigeons were widely used by German, British, and American forces in World Wars I and II and by the United States in the Korean War. In the South Seas, the ability of frigate birds to “home” to their nesting colonies enabled island inhabitants to send messages by these birds.

With the development of modern culture, hunting evolved from a foraging activity to a sport, in which the food value of the game became secondary. Large sums are now spent annually on hunting waterfowl, quail, grouse, pheasants, doves, and other game birds. Sets of rules and conventions have been set up for hunting, and in one elaborate form of hunting, falconry, there is not only a large body of specialized information on keeping and training falcons but also a complex terminology, much of it centuries old.

Many birds are kept as pets. Small finches and parrots are especially popular and easy to keep. Of these, the canary (*Serinus canaria*) and the budgerigar of Australia (*Melopsittacus undulatus*), often

called a parakeet) are widely kept and have been bred for a variety of color types. On large parks and estates, ornamental species such as peacocks (*Pavo cristatus*), swans, and various exotic waterfowl and pheasants are often kept. Zoological parks in many cities import birds from many lands and are a source of recreation and enjoyment for millions of people each year.

Pakistan being host to many migrating birds and geographically adjacent to countries like Afghanistan, and Iran has potential to grow in this sector as people of these two countries are more likely interested in keeping birds as pets. Moreover there's international demand for fancy birds around the world. The climate here provides perfect conditions for breeding fancy birds moreover sheer experience of people with handling fancy birds may play vital role in establishing this sector. For instance high fly pigeons are bred here in large number and exported to Afghanistan and Iran where pigeon enthusiasts buy these birds double the price when compared with local market.

Fancy bird industry is largest commercial hobby in the world; profitability percentage may vary between 80%-90% than the cost of production/ Breeding.

Breeding in Pakistan are of two types

- Rare (Imported and bred)
- Common (usually available locally)

## ***1.2 Defining the Product***

There are different varieties/species of fancy birds and amongst these the most common ones are Budgerigars, Fishers, and Love birds, Finches, Java, Doves, Cocktails and Pigeons.

### **Budgerigar**

Budgerigar is bred in different colors depending on market needs to name a few are blue, yellow, white, yellow, different color pied, red eye, spangle, Mutated Budgerigar such as crested, spangle and red eye.

### **Zebra Finch**

Zebra finch is inhabitant of central Australia and Indonesia however introduced to Portugal, Brazil and rest of the world later. These birds are mutated to different colors through artificial breeding and comes in different colors such as Pied, White, Grey, Silver, Fawn, Black check, White check, Silver check and King finch.

### **Diamond Dove**

Diamond dove is inhabitant of central, west and northern Australia. Diamond doves are bred in different colors such as silver, white tail and fawn.

### **Lovebird (*Roseicollis*)**

Lovebird is inhabitant of South Africa and is bred different colors such as pied, latino, albino, peach face, orange face and white face.

### **Cockatiel**

Cockatiel is inhabitant of Australia and has mutated through breeding in different colors such as Fawn, Albino, latino, pied, fallow and white face.

### **Java sparrow**

Java sparrow is inhabitant of Indonesia and is bred in different colors likewise silver, fawn and white.

## ***1.3 Geographical Locations***

Fancy bird breeding represents the best opportunity in both the rural and urban areas of Pakistan. The country has large amount of favorable conditions and climate for breeding all around the country for instance parrots may be bred all over the country. Areas in Punjab, Sindh, Khyber-Pakthunkhwa and Balochistan may represent the best breeding environment; however the habitat of the fancy birds is critical factor and location of the breeding farms for exotic birds, which must be adjacent to its natural habitat. Moreover Model Aviculture Program Guidelines for housing, feeding, watering, lighting, breeding, brooding, quarantine and health management of birds should be adopted.

## ***1.4 Core Cluster Actors***

### ***1.4.1 Size of Sector***

Global wildlife trade is a lucrative economic activity amounting to hundreds of billions of US dollars to date, with millions of organisms or their derivatives being legally traded worldwide every year. The wildlife trade is primarily driven by the demand for the animals to be used as food, pets, entertainment, luxury goods, commodity goods, and traditional medicine. In particular, the use of wildlife as pets and for entertainment is a substantial component of the wildlife trade, which has been documented by 82 out of 374 (22%) reports analyzing the drivers of the global wildlife

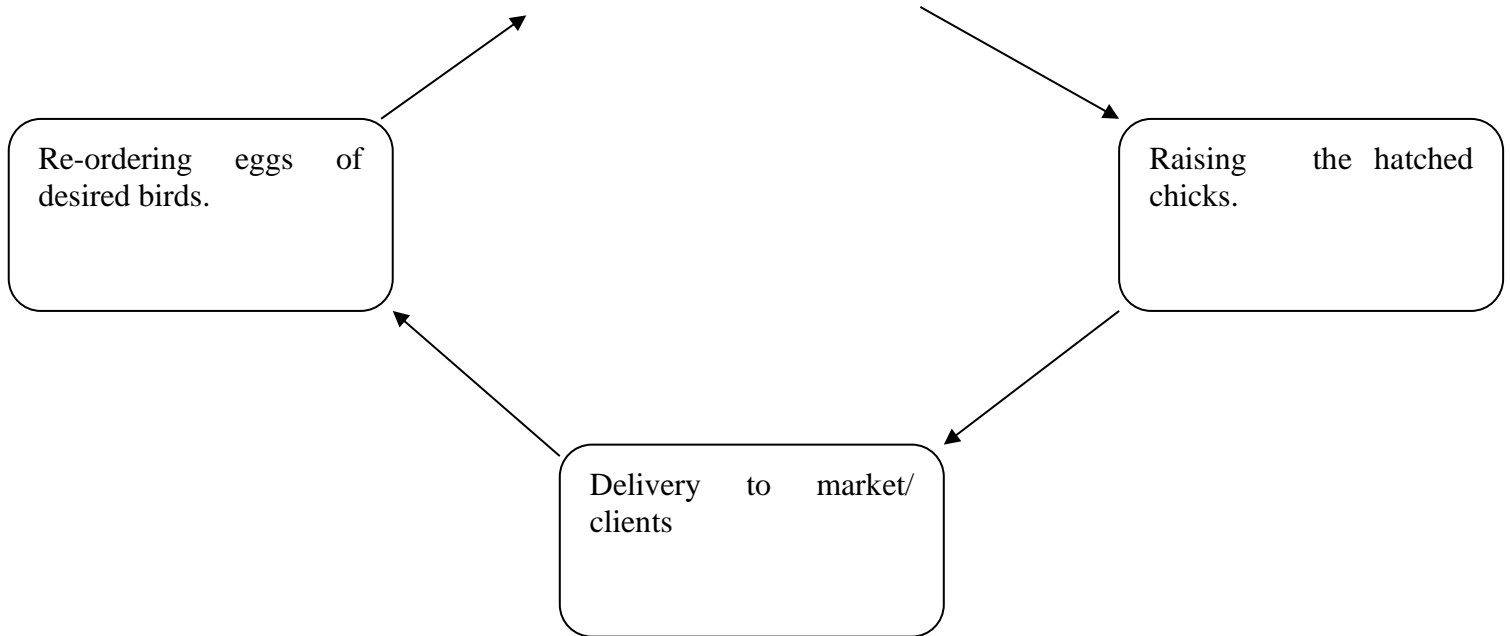
trade (Baker et al., 2013). During the 2010s, birds were heavily traded worldwide, and approximately half a million of birds were exported globally per year (CITES, 2020). More recent studies have shown that 2345 species, accounting for almost one-fourth of all bird species, were involved in the wildlife trade (Scheffers et al., 2019) and at least 585 species of birds have been reported to be in the exotic pet trade (Bush et al., 2014).

#### *1.4.2 Current Cluster Scenario*

The Wildlife Department of Khyber Pakhtun-khwa is working over a policy to make regulations for promotion of pet farming among people in the province. The love of birds and animals is increasing among people who are now keeping their liked species at home or farms. The policy is also aimed at promotion of wild species by allowing people to keep and grow them at their homes.

## **2 ANALYSIS OF BUSINESS OPERATIONS**

Purchasing eggs of  
desired birds to be bred.



- Stage 1: purchasing of eggs from certified distributor/ importer and placing eggs under controlled environment e.g. incubator. An incubator is a device simulating avian incubation by keeping eggs warm at a particular temperature range (37.5 °c for chicken eggs) and in the correct humidity with a turning mechanism to hatch them. It takes 21 days to hatch a chicken egg.
- Stage 2: After hatching chicks are raised and controlled environment is provided as per their biological needs. Providing chicks their natural habitat environment is the key to success.
- Stage 3: After successfully raising the chicks of the desired kind or specie a fully grown bird is sold in market or delivered to a particular client, there's vast market demand for certain birds nationally and internationally.
- Stage 4: After successfully selling the raised birds a re-ordering of eggs takes place and this process is repeated in cyclical manner.



## **2.1 Market Mechanism**

The demand for exotic birds has been on rise in Pakistan as bird enthusiasts are trying to get their hands on a fancy bird moreover internationally there is great demand for exotic bird. In general potential customers are bird enthusiasts who keep birds at their home as pets. However great demand for exotic birds exists internationally. According to Dawn newspaper report the business is more profitable than any other business quoting example of small towel factory owner who built cages of various small sizes in a vacant area of his factory premises located in Karachi. The businessman reported that he had abandoned his previous business and was engaged in avian trade full time.

Thus it can be stated that market for fancy birds exist both nationally and internationally.

## **2.2 Human Resource**

Human resource is locally available however experienced bird keepers may be contacted during certain circumstances, example disease etc.

# **3 INSTITUTIONAL SETUP**

## **3.1 Associations**

Pakistan Association for Cockatiels (PAC) is the official division of Pakistan Avicultural Foundation, which caters the specific needs of Cockatiel keepers, breeders, fanciers and hobbyist. This specific division (PAC) is formed and structured to increase the general knowledge and awareness of Cockatiels Keepers and Breeders' through traditional and modern education, techniques, researches for caged birds.

Karachi Budgerigar Association is a platform especially for Budgerigar Lovers in Karachi.

Pakistan Association of Budgerigars is another platform especially for Budgerigar lovers and is involved in conducting different Budgerigar & Canaries Exhibitions and Conferences.

## **3.2 Government Support Institutions / Educational Institutions**

Pakistan Avicultural Foundation is formed under section 42 of the Companies Ordinance 1984 as a non-profit organization. The mission of the organization is to preserve, conserve and maintain that specific part of ecosystem within the geographical boundaries of Pakistan.

## 4 SWOT ANALYSIS

### 4.1. Strengths.

- Fancy bird Business requires comparatively low capital requirement.
- Availability of skilled labor.
- Fancy birds business being less labor intensive.
- High profitability margins.

### 4.2. Weaknesses

- Intensive care required during the hatching season.
- The birds are delicate & sensitive to environment and there is always possibility of damage.
- Complexity associated with rising as per natural habitat.

### 4.3. Opportunities

- Proper management under the supervision of professional will lead to higher efficiency in terms of desirable & profits.
- High demand within and outside the country.
- Birds with quality breeds can fetch high price.

### 4.4. Threats

- Diseases like Paramyxovirus, ParaTyphoid, Adeno Virus, Ornithosis may cause harm to the birds.

## 5 INVESTMENT OPPORTUNITIES

The sector itself is very lucrative sector for investors in Pakistan and is fast emerging as a profitable business and about a dozen of farms are now operating across Pakistan. However as per reports by different investors already involved in this sector there's still market gap between demand and supply. There is great demand for exotic birds in international markets. Through government intervention investors may be supported and awareness may spread.

## **6 STRATEGIC RECOMMENDATIONS TO UPLIFT THE QUALITY & PRODUCTIVITY**

- Private investors need to be mobilized by formulating a legal framework for investment.
- The government may finance investors through commercial banks and on subsidized rates.
- Awareness sessions may be conducted by the government and potential investor may be motivated to invest in this sector.
- Through government intervention new international markets may be explored and information may be passed to the investors.