

Issue of the day -

Killer virus from chicken farms could wipe out half of mankind, scientist warns

In his book "How To Survive a Pandemic", Dr Michael Greger says that diseases harboured by poultry such as avian flu pose an even greater risk to humans than coronavirus

<https://www.mirror.co.uk/news/world-news/killer-virus-chicken-farms-could-22111228>

MY COMMENTS ON **POULTRY FARMING:**

Stand points

By

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Whether Poultry Should Be Banned for Ever ?

A) WELFARE OF HUMAN **POULTRY FARMING STATUS IN INDIA :**

Tamil Nadu, Andhra Pradesh and Telangana states are first, second and third in poultry population whereas Assam (71.63%) and West Bengal (46.34%) have maximum growth in poultry population during the year 2012 to 2019.

| CATEGORY | POPULATION (IN MILLION) 2012 | POPULATION (IN MILLION) 2019 | % CHANGE |
|--------------------|-------------------------------------|-------------------------------------|-----------------|
| Total poultry | 729.21 | 851.81 | (+)16.81 |
| Backyard poultry | 217.49 | 317.07 | (+)45.48 |
| Commercial poultry | 511.72 | 534.74 | (+)4.50 |

Source: 20- Livestock Census (2019), Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture and Farmers Welfare, Govt. of India.

OBJECTIVES OF GOVT.:

- 1) Livestock plays an important role in the Indian economy.
- 2) About 20.5 million people depend upon livestock for their livelihood.
- 3) Livestock contributed 16% to the income of small farm households as against an average of 14% for all rural households. Livestock provides a livelihood to two-third of the rural community.
- 4) It also provides employment to about 8.8 % of the population in India.
- 5) India has vast livestock resources. The livestock sector contributes 4.11% GDP and 25.6% of total Agriculture GDP.

- 6) India ranks 3rd in egg production and 7th in chicken meat production in the world. The Poultry Industry is contributing about Rs.90, 000 crores to the national GDP and providing employment to more than 5 million people either directly or indirectly.
- 7) Poultry farming is the form of animal husbandry which raises domesticated birds such as chickens , ducks , turkeys and geese to produce meat or eggs for food .
- 8) Poultry mostly chickens are farmed in great numbers.
- 9) Chickens raised for eggs are known as layers, while chickens raised for meat are called broilers.

B) WELFARE MAN,ANIMAL & ENVIROMENT

DISADVANTAGE OF POULTRY PRODUCTION:

A: CHECKEN EATING NOT-SAFE:

- a. Chickens are raised on growth promoters and eater ingest antibiotic-resistant bacteria that were harbored within the chicken. Those bacteria can make you sick. However, those bacteria do not respond to conventionally prescribed antibiotics so your sickness is hard to treat or can even be untreatable.
- b. Cooking at a high temperature kills all bacteria but uncooked meat can harbour resistant bacteria. Also, heat cannot break down some of the antibiotic residues that may have remained within the meat. Twelve of the 18 farms studied, or 67%, reported the use of antimicrobials as growth boosters.

- c. Tetracyclines and fluoroquinolones, antibiotics commonly used to treat cholera, malaria, respiratory and urinary tract infections in humans, were the most commonly used antimicrobials, with nine farms admitting their use. A similar study conducted by the Centre for Science and Environment in 2014 found the use of antibiotics in the feed of poultry animals. The finding of the latest study reiterates that the status quo has not changed and rampant misuse of antibiotics continues.
- d. Eggs are full of dangerous chemicals and bacteria . Heat cannot break down the antibiotic residues that remain within the eggs. When you fall sick, no antibiotic will be able to work on your disease. India has the largest number of people resistant to antibiotics, and the main reason is that our chicken/eggs carry them. After leaving the farm, the entire supply chain poses additional risks of contamination to the egg. Cracked eggs (about 6%) are particularly susceptible to outside contamination.
- e. A 2005 study in Punjab found residue of hexachlorocyclohexane (HCH) and dichlorodiphenyltrichloroethane (DDT) in eggs. These are both banned pesticides, and their presence on eggs is extremely dangerous to human health. Another 2010 study, by Dr S. Dey and S.K. Dwivedi from the Indian Veterinary Institute, found lead and cadmium in eggs. Their study noted that consumption of contaminated eggs could lead to heavy metal poisoning in children, resulting in IQ deficiencies and even mental retardation. Large scale egg handling invites salmonella and aflatoxin contamination. While most nations take measures to sterilise the egg surface from contamination, especially from Salmonella enteritidis, no measures are taken in India. In a recent study done in and around Hyderabad, eggs were collected from urban retail outlets and directly from poultry farms.

- f. Salmonella bacteria was commonly found on shells and inside the eggs collected from urban retail outlets. Salmonella infection is a bacterial disease that affects the intestinal tract. Typhoid fever, food poisoning, gastroenteritis, enteric fever, are all types of Salmonella infection. It is linked to contaminated water or foods, especially meat, poultry, and eggs. Salmonella bacteria is abundantly found in poultry sheds, water tanks, drinking water and feed in poultry premises. The internal contamination of eggs, by Salmonella, is either because the shell is thin enough to be penetrated, or that the egg was contaminated by the infected reproductive organs of the hen. Escherichia Coli, Enterobacter aerogenes and Sheigella were the other bacteria found.
- g. The FSSAI laws state that the eggshells must be free of blood rings, must not be soiled, or have faecal matter, and they must not be cracked. They have laid down the hygiene parameters that must be observed during production, processing and handling, which includes sorting, grading, washing, drying, treatment, packing, storage and distribution. They emphasise on storage conditions, like moisture and temperature, so as to reduce microbial contamination. No one even knows the laws. Poultry farmers, traders, exporters and even consumers, are unaware of the health risks of egg contamination. Abroad, every batch of eggs has to have the name of the poultry where they have come from. That is how the food inspectors were able to determine so quickly that the eggs, with fipronil pesticide in them, came from 18 poultries in Holland (Indian eggs have the same pesticide in them).

B. MOST CRUEL & INHUMANE FARMING:

- 1) Raising chickens for their eggs isn't as wholesome a practice as the egg industry wants you to believe. In fact, the suffering and mistreatment of layer hens make it one of the cruelest types of

farming in the food industry. PETA calls chickens "the most abused animals on the planet." Not only are they the most-killed animals for the purposes of feeding humans, but more chickens are killed for food every year than all other land animals put together.

- 2) Poultry farming disrupts the family unit among chickens, denies these animals their needs for social interactions and good nutrition, and otherwise forces them into cruel conditions until they're inhumanely slaughtered. The sad thing is that, in poultry farming operations, chickens are born for the specific purpose of dying young. They often don't get to experience fresh air, good nutrition, bonds with other chickens, veterinary care, or even the slightest kindness from a human being.
- 3) When we raise animals for the sole purpose of killing them later, we disrupt the ecosystem and deny animals their rights. Vegans and vegetarians work hard to reduce animal consumption, but there are plenty of meat eaters who don't think about poultry farming when setting the dinner table. Consequently, poultry farms continue to generate huge profits. No Dust Baths for them and always a chicken will never feel the warmth of the sun .
- 4) They will Never get chance for build a nest . All animals need fresh air to thrive. Indoor air, whether in a home or barn, is not nearly as healthy. As much as we talk about pollution, even the standard human home sometimes contains more pollutants than the air outdoors.
- 5) Most layer hens live their lives in wire battery cages. These cages give the animals very little room and force them to reside next to and even on top of one another. They can't clean themselves or turn around comfortably. Just like every other animal, chickens need exercise.
- 6) Poultry farming denies them this basic animal right. They don't get to stretch their legs, peck the ground, or participate in any other behaviors to which chickens instinctively Gravitate. Since, males can't lay eggs, they're slaughtered immediately after birth.

In a practice known as forced molting, laying hens must survive on a starvation diet.

- 7) The goal is to force all hens in a poultry farming operation to molt at the same time so they can return their energies to laying eggs. Chickens aren't designed to lay egg after egg. They have a natural cycle, just like every other creature on the planet, but poultry farmers manipulate it to suit their needs — and more specifically, their pocketbooks.
- 8) They're forced to lay far more eggs than they would naturally through selective breeding, hormone injections, and other means. They develop severe diseases of the reproductive system as a result, most of which go untreated. As any human woman knows, the process of gestating and birthing a baby is extremely hard on the body.
- 9) The same is true of other animals, including chickens. These laying hens often die in just a few years due to sheer exhaustion because their bodies can't keep up with the demands placed on them.

C. LOSS OF NATURAL RESOURCES:

- a. In fact, producing the same amount of chicken today as 1965 has 50% less impact on the environment. Many factors have contributed to the reduced environmental impact of producing chicken, including: 75% fewer resources required in poultry production; 36% reduced impact of poultry production on greenhouse gas emissions; 72% decrease in farm land used in poultry production; and 58% decrease in water used in poultry production. Chicken feed is primarily a mix of corn and soybean meal that is formulated by certified animal nutritionists. This ensures that each bird gets the right nutrients, at the right time. Nutritious feed results in chickens requiring less food to grow.
- b. Chicken feed never contains added hormones or steroids – it's the law. It is surprising to learn that growing corn and soybeans for the production of chicken feed is the largest source of water

consumption in chicken production. In order to produce 1 pound of chicken, it only takes about 1.82 pounds of feed, one of the best rates in all of US animal agriculture. This is known as feed conversion. Fifty years ago, it took 2.4 pounds of feed. That might not sound like a lot, but when you are feeding 9 billion chickens each year, that's a lot of land, water and emissions we are saving.

- c. Factory poultry manure contains heavy metals. The 5,100 tons of poultry manure produced daily in Arkansas dumps into the environment, each day, 3,100 pounds of manganese, 3,300 pounds of iron, 540 pounds of copper, 3,600 pounds of zinc, and 300 pounds of arsenic. Arsenic is "a known carcinogenic agent that when inhaled can cause cancer in humans, particularly lung cancer"
- d. As a result, animal protein production is projected to double by 2050. Consequently, poultry consumption is expected to grow at 2-3% per year and its share is also around 33% of the total meat produced in the world. The average per capita consumption of poultry is around 11 kg. Technology favors the intensification of poultry production in developing countries but environment and health issues will be the concern.
- e. A grain yield is adversely affected by warming that leads to food-feed competitions. This competition gives rise to looking for alternative feeds and other utilizing techniques to improving the nutritive values of poor ingredients. It needs 2 and 4 kg of cereals, to produce 1 kg of chicken meat and pork, respectively. This shows that chicken is relatively efficient in feed conversion ratio than other livestock.

E. LATEST DANGER OF HUMAN HEALTH:

THE GLOBAL SUPERBUG CRISIS:

- 1) Thousands of tonnes of veterinary colistin was shipped to countries including Vietnam, India, South Korea and Russia in 2016, the Bureau can reveal. In India at least five animal pharmaceutical companies are openly advertising products containing colistin as growth promoters. Drug resistance has been called one of the biggest threats to global

health, food security, and development by the World Health Organisation.

- 2) If antimicrobials stop working, doctors won't have effective drugs to treat deadly infections. Currently the problem is thought to kill 700,000 people worldwide - one person a minute - though these figures have been disputed by some academics. The death toll is expected to rise to 10 million by 2050 if no action is taken, with 4.7m of those deaths in Asia. Common procedures like joint replacements, Caesarean sections, organ transplants and chemotherapy could also become too risky to carry out.

- 3) The Bureau has tracked more than 2,800 tonnes of colistin for use on animals shipped to India, Vietnam, South Korea, Russia, Nepal, Guatemala, Colombia, Bolivia, Mexico and El Salvador in 2016. The total is likely to be higher as the product may be shipped under its brand name rather than being labelled as colistin - and to other countries for which customs data is not made public. By comparison, the UK uses less than a tonne a year of colistin in agriculture.

RULES-REGULATION- ETHICS:

- 1) The most common poultry breeds in India are: Broilers: Young males and Females raised for meat. They grow from a hatch weight of 40 g to a weight of approximately 1.5 to 2 kg within 6 weeks only. Layers: Hens used for commercial egg production and then killed for meat. Layer chickens are raised from one day old.

- 2) They start laying eggs at the age of 18-19 weeks and continue till they are 72-78 weeks of age. In nature, chickens exhibit a range of behaviour, including nesting, dust-bathing, perching and roosting, scratching and foraging. Foraging is important as hens prefer to find their own plants, insects and seeds rather than take from a feeder. Chickens dustbathe to balance oil levels in their feathers.

- 3) The scientists and the local Pollution Control Board visited six caged poultry farms and one cage free farm during February to grain samples were collected. All farms with caged birds were found with similar

poultry practices, therefore these are the observations - there are approximately 60,000-70,000 birds in each farm.

- 4) India raises approximately 460 million hens annually to produce eggs and is currently the third largest producer of eggs in the world. More than 80 percent of eggs come from industrial animal farms called factory farms.
- 5) The industry's method to produce cheaper eggs, in addition to poor animal welfare standards, also has an environmental impact contributing to deforestation and threatening air, water and soil quality. Globally, food companies are switching from battery cage systems to cage-free facilities. Companies making this change are looking for progressive regulators and farmers to collaborate with.
- 6) U.S. slaughterhouses now kill more than 30 million birds every day, 10 billion birds a year. This carnage pollutes land, air, and water with diseased carcasses, feces, heavy metals, chemicals, bacteria, parasites, pathogen cysts, and viruses. Poisoned well water is a major problem on the Delmarva Peninsula, which slaughters over 600 million chickens a year, resulting in an annual 3.2 billion pounds of raw waste, 13.8 million pounds of phosphorous, and 48.2 million pounds of nitrogen. A typical slaughter plant kills over a quarter of a million chickens and uses 2 million gallons of water per day.

F. ADVERSE EFFECT ON HUMEN HEALTH:

- 1) According to an US studies, a total of 29,682 U.S. adults who did not have cardiovascular disease (CVD) at baseline. Of the participants, 44% were men, and almost 31% were non-white. Researchers had recorded the participants' dietary data between 1985 -2002 and clinically followed them for 30 years, until August 31, 2016. Over a median follow-up period of 19 years, 6,963 adverse cardiovascular events and 8,875 all-cause deaths occurred. Of the cardiovascular events, 38.6% were cases of coronary heart disease, 25% were stroke events, and 34.0% involved heart failure.

- 2) More specifically, the increased relative risks of CVD and all-cause mortality ranged from about 3% to 7%. The increased absolute risks were less than 2% over the 30 years of follow-up. The relative risk of CVD rose by 7% for every 2 servings of processed meat per week. For unprocessed red meat, this risk was 3%.
- 3) A latest research found 56 percent of tested chickens contained resistant pathogens. For every third chicken, some contained bacteria which was even resistant to antibiotics of the highest priority for humans and called for a ban on the use of the most important antibiotics for humans in poultry, a levy on all other antibiotics in animal husbandry as well laws for better animal welfare on the farm.
- 4) People can capture antibiotic-resistant germs from factory farming, among other things, via food or via emissions from animal factories. Resistance rates will only drop when the federal government finally complies with its duty of care and prohibits veterinarians from compensating for the consequences of catastrophic housing conditions and turbo-breeding in the production of cheap meat and cheap milk by prescribing antibiotics.
- 5) While taking to butcher house chickens are loaded in trucks. This process is just horrible, where thousands of chickens are loaded and carried for hundreds of miles. During this drive, chickens get injured on their wings and legs. They are not provided with food and water and many of them even die during the journey to slaughter house. Then the remaining completely grown birds are taken to the market. Along with its high nutritional value there are some disadvantages, when you eat broiler chicken often.
- 6) Mass chicken farming is leaving humans vulnerable to a killer virus which could wipe out half of the world's population, a scientist claims. American nutritionist Dr Michael Greger says that diseases harboured by poultry pose an even greater risk to mankind than coronavirus.
- 7)

CONCLUSION:

Latest Research:

Source: The Mirror, USA

AS LONG AS THERE IS POULTRY, THERE WILL BE PANDEMICS- AMERICAN NUTRITIONIST

Dr. Michael Greger

(Source : <https://www.mirror.co.uk/news/world-news/killer-virus-chicken-farms-could-22111228>)

- 1) But Dr Greger, who made the grim prediction in his new book **"How To Survive A Pandemic"**, says intensive chicken farming could be an even greater threat to the world as we know it. Avian flu is an infectious illness that spreads among birds, and can in rare cases affect humans, such as during the H5N1 outbreak in Hong Kong in 1997.
- 2) Although this led to the slaughter of 1.3 million chickens , the bug has never been fully eliminated and more outbreaks have followed. Dr. Greger, who advocates for more plant-based diets.
- 3) He claims that intensive farms where the birds live in such tight spaces they cannot move their wings, and are exposed to high ammonia levels from their own droppings, is the perfect environment for disease to spread. The more animals are jammed together, the more spins the virus may get at the roulette wheel while gambling for the pandemic jackpot that may be hidden in the lining of the chickens' lungs.

4) The doctor argues that raising poultry in smaller flocks, allowing them to roam in less crowded and more hygienic spaces will help to slow the spread of viruses. However, the doctor also warns that even this may not be enough to prevent disaster, as a viral link between chickens and humans will still exist.

5) "As long as there is poultry, there will be pandemics"- American Nutritionist Dr. Michael Greger.

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