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Asia Cage-Free Benchmark Report

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FOREWORD

Asia is home to the majority—around 63%—of the world’s commercial laying hens.^[1] The region plays host to more than 3 billion hens laying eggs for human consumption, of which nearly 90% spend their lives in cages.

Scientific research dating back to the 1970s has repeatedly demonstrated that cage systems infringe on the fundamental welfare and behavioral needs of hens. A comprehensive review of the literature by the European Food Safety Authority, conducted in 2023, bluntly concluded that “cage[s] should not be used.”^[2]

In addition to directly impacting the welfare of billions of animals, industrialized animal farming is also intertwined with human public health. Globally, three quarters of emerging infectious diseases are zoonotic,^[3] and over 36% of these are associated with animals kept for food production.^[4]

Meanwhile, animal farming is responsible for an estimated 70% of the world’s antibiotics consumption^[5]—making it a key driver of antimicrobial resistance—with the administration of antibiotics to farmed animals projected to rise by 67% by 2030.^[6] The United Nations has joined other multinational organizations in recognizing that global action on animal health is central to preventing future international public health emergencies.^[7]

“
**The welfare of
farmed animals
is important
to me.**
”

86% of Asia Pacific consumers surveyed **agree.**

Public understanding of the treatment of farmed animals—and of the human health impacts of such treatment—is growing. In Asia, the public is increasingly concerned about the welfare of farmed animals, with an average of 86% of consumers agreeing that “the welfare of farmed animals is important to me” across eight countries in the Asia Pacific, including Australia, Bangladesh, China, India, Malaysia, Pakistan, Philippines, and Thailand.^[8]

With consumers demonstrating greater awareness of, and interest in, higher welfare food products, leading food businesses and investors are also embracing these shifting attitudes and demands. Hundreds of global companies have pledged to end their use of cage eggs in Asia, including multinationals like Nestlé, Unilever, Burger King, KFC, and Marriott, as well as homegrown Asian companies like Minor International and Jollibee Foods Corporation—the largest and fastest-growing Asian restaurant company in the world.^{[9][10]} Simultaneously, investor groups representing tens of trillions of dollars in assets under management have also begun to scrutinize the performance of Asian companies on farmed animal welfare in order to assess investment risk.^[11]

Despite these demonstrable shifts in how consumers and corporations are prioritizing animal welfare, companies in Asia have, by and large, not kept up with the public. The 2021 Business Benchmark on Farm Animal Welfare found that the average score for companies domiciled in the Asia Pacific was 14%^[12], while an analysis of 158 listed Asian companies by Asia Research and Engagement found only 11% of companies acknowledged risks related to farmed animal welfare.^[13]

This report, the inaugural Asia Cage-Free Benchmark, seeks to examine the role of governments across Asia in supporting the transition to cage-free farming, providing a snapshot of the progress being made in the world’s most populous region. The Benchmark assesses criteria across three pillars—Ending Cages, Policy Framework, and Welfare Standards—with a maximum score of 140 overall.

The Benchmark is a collaborative initiative of members of the Open Wing Alliance, a global coalition of animal protection organizations.

It is critical that governments in Asia play an active role in the shift to cage-free systems to ensure a smooth transition for consumers and industry stakeholders, regulatory certainty for corporate purchasers, and optimal animal welfare outcomes. At present, while there are standout performers, this Benchmark shows that most governments in Asia have yet to take full advantage of the policy tools at their disposal to lead the cage-free transition.

We expect that the Benchmark will be used as a measure to evaluate government performance and spur improvements over time. In addition, the Benchmark provides a useful resource for governments seeking effective policy tools to accelerate the cage-free transformation for the benefit of people and animals in Asia.

About the Open Wing Alliance

The Open Wing Alliance is a coalition of 100 animal protection organizations in 72 countries on six continents, trailblazing farm animal welfare in nearly every market globally. Through shared knowledge, resources, and people power, the OWA is united around its goal to end the abuse of chickens worldwide.

What are cage systems?

The vast majority of laying hens in Asia are confined in barren battery cages. These are wire, wood, or bamboo cages stacked in rows that provide each hen with less space than an A4 size piece of paper. Hens must eat, drink, defecate, and lay eggs within this cramped space throughout their productive life, deprived of the ability to stretch their wings, forage, perch, scratch or shake their bodies, or dust bathe. The stress and frustration experienced by the hens can result in feather loss, feather pecking, foot and neck injuries, and death. Furthermore, laying hens are often forced to endure painful procedures such as beak trimming, where hens' beaks are trimmed to reduce the risk of skin injuries from injurious feather pecking. Barren battery cages are designed to maximize egg production without consideration for the welfare of the hens.

'Enriched' or 'furnished' battery cages are similar to barren battery cages but provide accommodations for some

natural behaviors, such as nesting and perching. However, these are not sufficient to enable hens to fully express their natural behaviors: the cramped confines still restrict hens from moving around and exercising freely, resting undisturbed and engaging in natural behaviors such as wing flapping and body shaking. 'Enriched' cages were developed in response to the European Union ban on barren battery cages that came into effect in 2012.

All battery cages, whether barren or 'enriched', severely confine the birds in such a way that restricts their ability to move around and express their natural behaviors, causing them pain, stress and frustration.

The criteria for cage-free systems employed by the Benchmark allow hens to engage in many of their natural behaviors and avoid the levels of stress and frustration currently experienced by the majority of the hens in Asia. While not perfect, transitioning to cage-free systems is a vital step towards improving the welfare of laying hens in Asia.



Photo: Jo-Anne McArthur • We Animals Media

EXECUTIVE SUMMARY

Asia is home to most of the world's commercial laying hens—more than 3 billion overall—of which close to 90% are confined in cages.

The public has demonstrated mounting interest in animal welfare. Asian consumers are increasingly concerned about the welfare of farmed animals, and hundreds of global food businesses have responded by transitioning to higher welfare animal farming systems, including cage-free. At the same time, animal farming is intimately connected to some of the region's most pressing public health challenges—such as emerging infectious diseases and antimicrobial resistance.

The Asia Cage-Free Benchmark assesses 17 countries and regions

across East Asia; South and West Asia; and Southeast Asia, Australia and New Zealand (SEAANZ).

Countries and regions include:

- Australia
- Bangladesh
- Bhutan
- China
- India
- Indonesia
- Israel
- Japan
- Malaysia
- Nepal
- New Zealand
- Philippines
- Singapore
- South Korea
- Taiwan
- Thailand
- Vietnam

This inaugural Asia Cage-Free Benchmark assesses how governments across Asia are supporting the transition to cage-free farming. The Benchmark applies 31 criteria to assess performance across three pillars—Ending Cages, Policy Framework, and Welfare Standards—and spur improvements over time. Ending Cages assesses cage bans and progress towards eliminating cages, Policy Framework examines the overarching policy architecture supporting the transition, and Welfare Standards evaluates welfare standards for hens in cage-free systems, spanning on-farm, transport, and slaughter and killing.

The Benchmark highlights:

Governments are not using all of the tools at their disposal

The average score in the Benchmark was just 26.9 out of a possible score of 140, revealing that governments have a long way to go to support the cage-free transition.

Countries in Asia performed best on Welfare Standards

The Benchmark findings reveal that countries obtained an average of 32% of the maximum points available for Welfare Standards—the highest score for any of the three pillars. This compares with 24% of the maximum points available for Policy Framework and just 11% for Ending Cages.

Performance is not directly correlated with wealth

The Benchmark results show that there is not a direct correlation between wealth and government support for the cage-free transition. For example, Bhutan ranks fourth in the Benchmark with a per capita GDP of USD \$3,266, while wealthier countries such as Singapore and Japan languish near the bottom of the rankings.



Photo: We Animals Media

Effective enforcement is sorely lacking

While 14 of the 17 governments surveyed have some form of laying hen welfare or cage-free standards, less than one third have enacted financial penalties for violations of the standards. More significantly, only four governments offer publicly-documented evidence of effective enforcement programs. **While standards are an important first step, effective enforcement and penalties are critical if standards are to effect change at the producer level and, ultimately, for the animals themselves.**

South and West Asia fared best overall, closely followed by SEANZ

Of the three regions, countries in South and West Asia exhibit the strongest performance, with average scores of 30.7, closely followed by SEANZ at 27.3. Countries and regions in East Asia have the lowest average scores by a significant margin at 21.3.

The Benchmark also captures differences between regions. On average, countries in South and West Asia score highest for their progress towards Ending Cages (13.6), while SEANZ demonstrate the most comprehensive Welfare Standards (12.9). Despite performing worst overall, countries and regions in East Asia have the most robust Policy Frameworks (13.0) of the three regions.

Best and worst performers

New Zealand ranks first in the Benchmark with an overall score of 86—scoring highest, or tying for the highest, on two of the three pillars—followed by Israel at 78 points, Australia at 62 points, and Bhutan at 44 points. Conversely, Bangladesh, Malaysia, and Vietnam rank the lowest in the Benchmark with overall scores of just 4 points, followed by Singapore at 6 points, Nepal at 6.5 points, and Japan at 8 points.

New Zealand has recorded the highest score on the Ending Cages pillar, South Korea has the strongest Policy Framework, and Israel and New Zealand share the top spot for Welfare Standards.

BENCHMARK RANKING

#	Country/region	Pillar 1 Ending Cages (Max. score 72)	Pillar 2 Policy Framework (Max. score 32)	Pillar 3 Welfare Standards (Max. score 36)	Total Score (Max. score 140)
1	New Zealand	40	20	26	86
2	Israel	36	16	26	78
3	Australia	24	16	22	62
4	Bhutan	32	1	11	44
5	South Korea	0	22	12	34
6	Taiwan	0	16	13	29
7	India	0	9	12	21
7	Indonesia	0	6	15	21
7	Philippines	0	6	15	21
10	China	0	9	5	14
10	Thailand	0	2	12	14
12	Japan	0	5	3	8
13	Nepal	0	1	5.5	6.5
14	Singapore	0	1	5	6
15	Bangladesh	0	0	4	4
15	Malaysia	0	0	4	4
15	Vietnam	0	0	4	4

See Appendix I for Benchmark scores by region.

SCOPE AND METHODOLOGY

The Asia Cage-Free Benchmark spans 17 countries and regions divided into three regions: **East Asia; South and West Asia; and Southeast Asia, Australia, and New Zealand (herein referred to as SEAANZ).**

The geographic scope of the Benchmark was determined by the distribution of Open Wing Alliance members and with reference to the Farmed Animal Opportunity Index.^[14]

The Benchmark assesses countries and regions according to 31 criteria. The criteria were developed by a working group with representatives from six countries based on scientific research, expert consultation, and established laying hen welfare standards from Asia and other parts of the world.

The Benchmark seeks to conduct a holistic comparison and thus does not encapsulate progress at the state or provincial level.^[15] The Welfare Standards pillar only considers standards applicable to all laying hens housed in cage-free systems, and thus excludes specialty standards such as organic schemes.

Pillar	Number of Criteria	Maximum Points Allocation
Ending Cages	5	72
Policy Framework	8	32
Welfare Standards	18	36
Total	31	140

The data used in the Benchmark was reported by participating organizations or collaborators from each respective country via a survey conducted between April and August 2023 and subsequently reviewed for accuracy and consistency.

Data that was unable to be obtained during the data collection period is marked as N/A in the scoring tables and was not awarded points in the Benchmark.

If you identify any potential errors in the report, please notify the authors via this [contact form](#).



Photo: Indonesia Ayam Bahagia Farm

PILLAR 1: ENDING CAGES

This pillar assesses the progress each government has made towards Ending Cages. The five criteria cover bans and phase outs of cage systems, bans on the construction of new cage systems, policy targets to phase out cage systems, and the current proportion of laying hens housed in cage-free housing.

There are a maximum of 72 points available—the highest of the three pillars—reflecting the importance of ending cage confinement to hen welfare. See Appendix II for the full Benchmark criteria.

East Asia

Cage bans

East Asia is the only region not to have made any formal progress towards phasing out cage systems, based on the countries and regions surveyed. China, Japan, South Korea, and Taiwan have yet to enact bans on the use or construction of either barren battery cages or so-called ‘enriched’ cages.

While the surveyed governments have yet to implement bans on cages, there are active advocacy efforts in the region. For example, the Environment & Animal Society of Taiwan (EAST) spearheaded efforts for Taiwan to phase out battery cages by 2030, securing the support of more than 300 legislators, veterinarians, businesses, civil society organizations, and other high-profile figures.^[16] In Japan, Animal Rights Center Japan has led ongoing efforts for a ban on cages.

None of the governments surveyed in East Asia have enacted policy targets—official, timebound targets for transitioning away from cage production—to phase out the use of cages.

Transition progress

According to International Egg Commission data (2020), East Asia accounts for 33% of the world’s commercial laying hens, with China alone home to almost 30% of the global flock.^[17] In all of the countries and regions surveyed in East Asia, the proportion of layer hens raised in cage-free housing currently accounts for less than 10% of the overall laying flock.



Activists hoist placards outside Taiwan’s presidential office on World Animal Day in 2023 • Photo: EAST

Southeast Asia, Australia, and New Zealand (SEAANZ)

Cage bans

The majority of countries (6 out of 8) in SEAANZ have not implemented bans on the use of cages, or the construction of new cages, for both barren battery cages and ‘enriched’ cages.

New Zealand enacted a ten-year phaseout of barren battery cages in 2012. The government prohibited the installation of new barren battery cages after October 2018, with existing barren battery cages required to transition by January 2023.^[18] The phaseout saw the proportion of laying hens confined in barren battery cages drop from 86% to zero within a decade, highlighting the critical role of government in leading the industry transition.^[19] Given that a third of New Zealand’s laying hens are still confined in ‘enriched’ cages,^[20] local advocacy group SAFE (Save Animals From Exploitation) has garnered more than 36,000 signatures to call for a blanket cage ban, demonstrating considerable public support.^[21]

Australia has a ban on the construction of new barren battery cages beginning in July 2022 and will phase out existing barren battery cages between July 2032 and July 2036, depending on the date of installation. The provisions are part of new Australian Animal Welfare Standards and Guidelines for Poultry, which were endorsed by Australian states and territories in mid-2023, though these must be legislated by each state and territory.^{[22][23]}

Australian states and territories pave the way

Tasmania became the first jurisdiction in Australia to restrict the use of barren battery cages, banning the installation of new barren cages in 2013.^[24]

The Australian Capital Territory became the first jurisdiction in Australia to end the use of barren battery cages entirely when it passed a ban in 2014.^[25]

Together, these two jurisdictions paved the way for a national agreement to phase out battery cages endorsed in 2023.

Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam do not currently have bans on the use of cages or policy targets to phase out their use.

Transition progress

Cages are still the predominant housing system for most countries within SEAANZ, with the majority of countries (6) in the region housing less than 10% of their laying hen flock in cage-free systems. Currently, only two countries—Australia and New Zealand—house the majority of their laying flock in cage-free systems.

South and West Asia

Cage bans

South and West Asia has made the most progress on cage bans—led by Israel and Bhutan—and boasts the highest average score of the three regions.

Bhutan is the only country in the region to have fully implemented a ban on barren battery cages. In 2012, the Minister of Agriculture and Forests announced that hens “shall never be continually confined in restrictive cages” that prevent hens from fully stretching their limbs or expressing important natural behaviors.^[26] The Bhutan Animal Welfare Standards and Guidelines also state that laying hens must be provided with either a nesting area or nest boxes,^[27] thereby precluding the use of barren battery cages.

Israel is the only country in South and West Asia to have enacted a phaseout of both barren battery cages and ‘enriched’ cages. Under the regulations, new cages of any size are prohibited as of July 2022. Cages that provide less than 600cm² to 750cm² of space per hen are to be prohibited within three years^[28] of the ban, while cages that provide at least 600cm² to 750cm² of space per hen will be banned from 2037.^[29]

Bangladesh, India, and Nepal do not currently have bans on the use of cages or policy targets to phase out their use.

Barren battery cages face legal challenges in India

The Constitution of India declares that it is the “duty of every citizen of India ... to have compassion for all living creatures.”^[30]

In February 2012, the Animal Welfare Board of India directed the Central and State Governments to phase out the use of barren battery cages, arguing they contravened the Prevention of Cruelty to Animals Act, 1960 (PCAA). While this direction was not obeyed, in August 2018 the Uttarakhand High Court banned the use of battery cages in the state with immediate effect.^[31] However, the ruling was stayed due to similar cases before the Delhi High Court.^[32]

In September 2018, the Delhi High Court issued a temporary ban on new battery cages and ordered the government to devise new rules to ensure farmers comply with the PCAA. Unfortunately, the temporary ban came to an end when the Central Government published new rules in February 2023. While the new rules require each bird be given at least 550cm² of space on new farms or in newly-installed facilities, with existing farms to comply by January 2029, they continued to allow the use of barren battery cages.^[33]

The revised rules were immediately condemned as ‘humane washing’; trying to appease calls to ban battery cages by tweaking the standards, instead of implementing a ban. The Government now faces legal challenges from People for Animals and the Federation of Indian Animal Protection Organisations for contravening the PCAA.^[34]

Transition progress

At present, cages remain the dominant housing system in South and West Asia, with Bangladesh, India, and Nepal all housing less than 10% of their laying flocks in cage-free systems. Israel is the only country in the region to achieve 10% of their laying flock in cage-free systems, while data on housing systems^[35] in Bhutan could not be obtained during the data collection period.

Surveys indicate broad public support for the transition

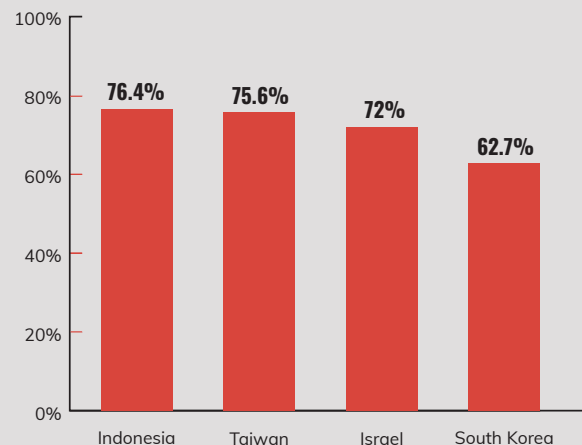
While most countries in the Benchmark have yet to begin phasing out cage systems, surveys reveal broad public support for the transition in Asia.

Survey results consistently record high levels of public concern for the suffering of laying hens. A 2022 study found that an average of 73% agreed that ‘it matters to me that laying hens do not suffer’ among the seven Benchmark countries featured in the survey—Australia, Bangladesh, China, India, Malaysia, the Philippines, and Thailand.^[36]

Similarly, many consumers indicate a preference for eggs from hens not kept in cages. The same 2022 study found that an average of 68.4% of consumers are willing to pay more for cage-free eggs across the Benchmark countries.^[37] This result is echoed in surveys of consumers in Indonesia (76.4%),^[38] Taiwan (75.6%),^[39] Israel (72%),^[40] and South Korea (62.7%),^[41] with premiums ranging from 18% to 60.8%.

While there is less data on attitudes towards phasing out cages, broad majorities in Israel (89%)^[42] and Australia (77%)^[43] expressed support for phasing out barren battery cages prior to their countries enacting phaseouts. A survey of Taiwanese adults found that 58% believe it is necessary for Taiwan to legislate a ban on battery cages.^[44]

Percentage of consumers willing to pay a premium/pay more for cage-free eggs



PILLAR 2: POLICY FRAMEWORK

This pillar evaluates each country and region's Policy Framework to support the transition away from cages. Eight criteria are used to assess the completeness of the policy architecture. These include whether a government has laying hen welfare standards, mandatory labeling of housing systems, financial subsidies, training and support for cage-free systems, effective enforcement and penalties, official housing system statistics, and government-funded research.

There are a maximum of 32 points available in this pillar, with each criterion awarded a maximum of four points. See Appendix II for the full Benchmark criteria.

East Asia

Official standards

All four countries and region examined in East Asia have some form of standards that apply to laying hen welfare. South Korea and Taiwan both outline specific standards for cage-free systems, while China and Japan only have general standards for laying hen welfare. All of the standards currently in place are voluntary in nature.

South Korea has an official animal welfare certification that has established standards for laying hen welfare since 2012.^[45] Eggs from farms that demonstrate they meet the certification requirements may display the 'Animal Welfare' certification mark on product packaging. Only cage-free farms are eligible for certification. Similarly, Taiwan enacted official standards for so-called 'animal-friendly' housing systems in 2015, which include specific standards for free range, barn and enriched cage systems.



The certification mark for "Animal Welfare" on product packaging in South Korea

China and Japan have general standards for laying hen welfare,^{[46] [47]} but they have yet to set standards specific to cage-free systems. Japan revised its layer hen handling guidelines in July 2023, but it overlooked submissions by animal welfare organizations calling for specific cage-free standards.

China makes progress on welfare standards

In 2021, the state-affiliated China Chain Store & Franchise Association (CCFA) published China's first formal cage-free standard. CCFA is the official representative of China's retail industry, with members including Walmart, Yonghui Superstores, and Haidilao. Together, CCFA members operate more than 460,000 retail stores.^[48]

The standard includes provisions relating to on-farm husbandry practices, killing for disease control, catching, and transport. The initiative aims to standardize cage-free practices and provide a baseline for purchasers seeking to evaluate cage-free suppliers.^[49]

Chinese provinces have also published standards containing provisions for laying hen welfare. In Hebei, organic egg production standards require hens to be free range with a maximum stocking density of 4-5 hens per square meter indoors and the equivalent of 0.025-0.06 hens per square meter on the range.^[50] Similarly, Henan's standards for ecological woodlands egg production state stocking densities should not typically exceed 6 hens per square meter indoors and be kept under 0.045-0.090 hens per square meter in the woodlands.^[51]

Shandong, China's largest egg-producing province,^[52] became the first province to introduce guidelines for the welfare of chickens during slaughter in 2016. The guidelines outline stunning methods, handling procedures, and recommended limits on transport time.^[53]

These industry and provincial-level standards were not considered in the scoring of the Benchmark.

Egg labeling

South Korea and Taiwan have both enacted mandatory labeling of housing systems on eggs. China and Japan have yet to set similar requirements.

While South Korea and Taiwan both require housing systems to be stamped on eggshells as part of traceability codes, only South Korea requires this for all cage eggs (Taiwan's requirements currently only apply to washed eggs in designated distribution channels).^[54] South Korea uses numbers to represent the housing system, while Taiwan uses letters of the alphabet, as depicted below. Taiwan also mandates that housing systems be marked on product packaging for free range, barn, and 'enriched' cage eggs.

South Korea		Taiwan	
Code	Housing System	Code	Housing System
1	Free range	O	Organic ^[55]
2	Barn	F	Free range
3	'Improved' cages ^[56]	B	Barn
4	Conventional barren battery cage	E	"Enriched" cage
		C	Conventional barren battery cage

While Japan does not have official labeling requirements that fulfill the Benchmark criteria, the Japan Poultry Association requires its members—which comprises most egg producers in Japan—to clearly state the housing system in accordance with the Egg Fair Trade Council's labeling guidelines.

Training and support

None of the surveyed governments in East Asia provide targeted financial subsidies for cage-free systems as required by the Benchmark criteria. South Korea and Taiwan provide some incentives to cage-free farmers, but these are loans and thus do not meet the Benchmark criteria.

Taiwan offers low-interest loans of up to NTD \$50 million to farmers to invest in 'animal-friendly' facilities—including free range, barn and enriched cage systems—with the interest rate currently set at 1.4% per annum.^{[57][58][59]} In South Korea, farms can apply for an 80% loan for the cost of upgrading their facilities with longer repayments, a grace period, and favorable interest rates of 1% for small to

medium farms and 2% for large scale farms. While animal welfare certified farms are prioritized over non-certified farms, the scheme is open to all farms.^[60]

China and South Korea both provide technical training and support for cage-free farmers, which is absent in Japan and Taiwan. In China, the government-run Shanxi Agricultural University signed an MOU with Global Food Partners in mid-2023 to establish a model farm and training center to be used to familiarize farmers with best practices for cage-free farming.^[61] In South Korea, the government provides guidance on cage-free farming for farms certified under the government's animal welfare certification.

Governments in all four countries and regions surveyed in East Asia fund research related to laying hen welfare. For example in South Korea, the government Poultry Research Institute has conducted research into laying performance and disease occurrence in different housing systems, as well as consumer awareness of laying hen welfare.



A graphic explains South Korea's eggshells traceability codes
Image: Ministry of Food and Drug Safety and Ministry of Agriculture, Food and Rural Affairs



Taipei City announces it will begin sourcing cage-free eggs in school lunches alongside animal-friendly businesses
 Photo: Taipei City Government

Government procurement

While not a criterion in the Benchmark, governments can also provide support through preferential government procurement policies.

In 2023, Taipei City announced it would begin sourcing a small amount of cage-free eggs each semester as part of the city's school lunch program. The policy will apply to all elementary, junior high, and senior high schools in the city, which serve approximately 230,000 lunches a day.^[62]

Similarly, Japan's Cabinet Office introduced a policy of sourcing exclusively cage-free eggs for its employee cafeteria in 2021.^[63]

In the lead up to the Tokyo Olympics, activists campaigned for the organizing committee to require athletes be served eggs from cage-free hens—as in London 2012 and Rio 2016—but their calls were not heeded.^[64]

Enforcement and penalties

Taiwan is the only jurisdiction in East Asia with both publicly-documented enforcement procedures and financial penalties. Taiwan's labeling requirements have legal force, and violations are punishable by fines between NTD \$30,000 and NTD \$3 million.^{[65][66]} In 2019, Taiwan's Food and Drug Administration launched a special operation to investigate coherence between egg labeling and official laying hen welfare standards.^[67] South Korea has an effective, publicly-documented enforcement program but lacks financial penalties.

Statistics

South Korea is the only country in the region to publish official statistics on cage-free production. In South Korea, data on farms accredited under the government's animal welfare certification—which must be cage-free—is publicly available through the Animal Welfare Information System,^[68] while other production statistics are published by the Animal and Plant Quarantine Agency and National Statistical Office.^[69]

In Taiwan, authorities commissioned a one-off survey of farms to gather information on ‘animal-friendly’ farms in 2021, but there is no routine publication of such statistics as required by the Benchmark criteria.^[70]

Southeast Asia, Australia, and New Zealand (SEAANZ)

Official standards

Three quarters of the countries surveyed in the SEAANZ region have some form of government enacted official laying hen welfare standards. Australia and New Zealand are the only two countries to have enacted mandatory cage-free standards, while other countries in the region have voluntary standards for cage-free systems. For example, the Philippines government published their Code of Practice for Cage-free Egg Production in 2021, and the Indonesian Department of Agriculture released Guidelines for Animal Welfare for Layer Hen Farms in 2023 specifically for barn and free range systems. Though Singapore does have a general poultry code, the government has not enacted specific cage-free standards for laying hens.

Out of the eight countries in SEAANZ, only Malaysia and Vietnam lack any form of standards regarding laying hen welfare or cage-free farming.

Egg labeling

Among the eight countries surveyed in the SEAANZ region, no countries require mandatory labeling of housing systems.

Australia has a voluntary labeling code that requires that ‘CAGE EGGS’ be printed on egg cartons of cage eggs, which is adhered to by most supermarkets. New Zealand’s national egg industry body has also established a voluntary stamping scheme that marks the housing system as part of a traceability code.^[71] However, neither of these schemes are mandatory as required by the Benchmark criteria.

Training and support

None of the eight countries surveyed in SEAANZ provide financial subsidies for cage-free farming.

Indonesia and the Philippines both provide technical training and support for cage-free farmers. In Indonesia, the government-run Gadjah Mada University has inaugurated a model farm and training center in partnership with Global Food Partners. The facility provides training in cage-free management and production for farmers.^[72] The government has also funded training for free range farming at the village level delivered by female farmers group Kelompok Wanita Tani.^[73] In the Philippines, the Agricultural Training Institute partnered with Animal Kingdom Foundation to provide



*Training at a model cage-free farm in Indonesia led by Global Food Partners and Universitas Gadjah Mada
Photo: Global Food Partners*



*F.A.I.R - A festival in Indonesia that gathers corporates, government, farmers, academics, NGOs, and members of the public for talkshows, entertainment, and a bazaar
Photo: Animal Friends Jogja*

online training as farmers emerged from the pandemic.^[74] The Institute also developed a seven-module course on the basics of cage-free farming developed by Global Food Partners to its e-learning platform.^[75]

New Zealand and Australia both offer government funding for research on laying hen welfare or housing systems, with New Zealand listing “improving animal health and welfare” as a specific funding area under its Sustainable Food and Fibre Futures initiative.^[76] Local research can increase industry knowledge and support improved husbandry practices. However, this approach was not found to be replicated by any other countries in the region. The authors were unable to ascertain whether Singapore offers relevant research funding during the data collection period.

Enforcement and penalties

Australia and New Zealand are the only two countries in SEAAANZ to have publicly-documented programs to enforce the implementation of their welfare standards.^[77] While cage-free guidelines in Thailand and Indonesia both make reference to monitoring, no evidence could be found of effective enforcement as required by the Benchmark criteria.

Australia and New Zealand have instituted financial penalties for violations of welfare standards. For example, the Federal Court of Australia has ordered penalties totaling more than AUD \$1.5 million (approx. USD \$974,000) to egg producers marketing eggs as free range while failing to provide sufficient space or access to the range.^[78] While Indonesia, the Philippines, Singapore, and Thailand have enacted voluntary welfare standards, there are no associated penalties, as the standards are voluntary in nature.

Effective enforcement and penalties for violations of laying hen welfare are clearly lacking in the SEAAANZ region.

Statistics

New Zealand is the only country assessed in SEAAANZ to routinely publish national-level cage-free statistics. New Zealand’s statistics are voluntarily provided to the government by the national industry body each year under an agreement reached in 2012, highlighting opportunities to collaborate with external stakeholders to facilitate data collection.^[79]

Robust, accessible statistics are critical for understanding the effectiveness of policy measures and facilitating industry development. However, statistics in many countries in SEAAANZ do not address how laying hens are farmed. For example, the Indonesian government provides annual statistics on laying hens on commercial farms and native chickens on backyard farms, but it does not provide a breakdown of housing systems.^[80]

South and West Asia

Official standards

Israel is the only country in South and West Asia among those surveyed to have enacted mandatory welfare standards covering cage-free systems,^[81] while Bhutan, India, and Nepal have all instituted general standards for laying hen welfare.

Bangladesh is the only country in South and West Asia without any form of official welfare standards for laying hen welfare or cage-free farming.

Egg labeling

None of the countries surveyed in South and West Asia require comprehensive labeling of housing systems on product labeling.

In Israel, the housing system is typically indicated on product packaging when free range or organic eggs are sold above government regulated prices. However, this is not mandatory and does not apply to cage systems as stipulated by the Benchmark criteria.

Training and support

Israel, which has enacted a comprehensive phaseout of cage systems, is the only country surveyed in South and

West Asia to provide financial subsidies for cage-free systems. Israel launched subsidies to support farmers upgrading to cage-free systems as part of its phaseout of cage systems. The subsidies are valued at NIS ₪380 million (approx. USD \$102 million). The package also includes retirement payments for farmers who decide to leave the industry, with payment amounts proportional to the scale of production.^[82]

Israel and India are the only countries in the region to offer technical training and support to cage-free farmers. This provides a model for other countries in the region, as management practices have been shown to be critical to optimizing the welfare of birds in cage-free systems.^[83]

In stark contrast to East Asia—where government-funded research was found in all countries surveyed—not a single country in South and West Asia was found to fund research into laying hen welfare or housing systems. This represents an opportunity to better understand laying hen welfare and cage-free systems in local conditions as a first step towards transitioning the industry in countries where the cage-free market is less established.

Enforcement and penalties

No country in South and West Asia has effective, publicly-documented procedures to enforce the implementation of their welfare standards—with one Benchmark survey respondent noting that enforcement only occurred after “multiple and persistent complaints”—underscoring a lack of effective enforcement in the region.

Only India and Israel have financial penalties for violations of their laying hen welfare or cage-free standards.

Statistics

None of the countries benchmarked in South and West Asia publish official statistics on cage-free production. In Israel, statistics are collected but not made publicly available and are only made accessible through Freedom of Information requests. This does not meet the standard required by the Benchmark criteria.

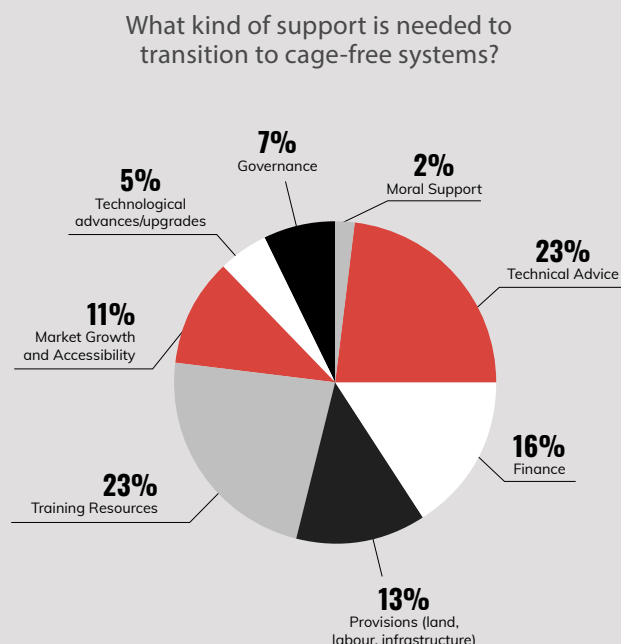
Asian egg farmers identify need for government support

A 2022 study of Asian egg farmer perceptions on the adoption of cage-free systems found that 72% of farmers believe more support is needed to establish cage-free farms in their country.

The highest priority forms of support were technical advice, training resources, and finance, with most respondents believing the government should offer that support.

The study surveyed the views of 224 egg farmers from China, Indonesia, Japan, Malaysia, the Philippines, and Thailand, with the vast majority of farmers (65%) agreeing that cage-free systems are feasible in their country.^[84]

Figure credit (right): *Cage egg producers' perspectives on the adoption of cage-free systems in China, Japan, Indonesia, Malaysia, Philippines, and Thailand*





Hundreds of companies in Asia pledge to go cage-free

Globally, more than 2,500 companies have committed to eliminate cage eggs from their supply chains, including hundreds of companies in Asia.^[85] These commitments represent leading retailers (Aldi, Carrefour, and Lotus's), food manufacturers (Nestlé, Unilever, and Kraft-Heinz), restaurant chains (KFC, Burger King, and Jollibee) and hotels (Marriott, IHG, and Mandarin Oriental). Together, corporate commitments alone require that billions of eggs in Asia are produced in cage-free systems in the coming decade.

There is an increasing number of resources for companies making the switch. For example, Singapore-based consulting firm Global Food Partners was established to help companies fulfill their cage-free commitments in Asia by developing localized roadmaps, training employees and suppliers, and providing technical advice and policy implementation support.^[86] In addition, international animal welfare organization Compassion in World Farming hosted the first ever Good Farm Animal Welfare Awards in Asia in late 2023, awarding nine Asian companies for their cage-free achievements.^[87]

In 2023, the Asia Cage-Free Tracker released by animal protection organization Sinergia Animal found 80% of 65 companies in five Asian markets reported some form of progress on their cage-free commitments; this represents an increase of 17 companies from the previous year.^[88] However, just one third of companies reported Asia-specific progress, reflecting a need for greater transparency on implementation progress in Asia.

As corporate deadlines approach, it is crucial that governments in Asia enact robust policy frameworks to provide investment certainty, maintain consumer confidence, and ensure an orderly transition.

ASIA-WIDE CAGE-FREE COMMITMENTS

A selection of major companies with Asia-wide cage-free commitments and their transition timelines. This is a non-exhaustive list.

Jollibee Foods
CORPORATION

Jollibee, Yonghe King,
Coffee, Bean & Tea Leaf (2035)



Unilever (2025)

LANGHAM
HOSPITALITY GROUP

Langham Hospitality Group (2025)

TORIDOLL→

Marugame Udon, Wok to Walk,
Tamjai Samgor (2030)^[89]

KraftHeinz

Kraft-Heinz (2025)

THE PENINSULA
HOTELS

Peninsula Hotels (2025)



KFC, Pizza Hut, Taco Bell (2030)

Mondelez
International

Mondelez International (2025)



Carrefour
Carrefour

(2025, 2030 & 2032)^[92]

rbi restaurant
brands
international

Burger King, Popeyes (2030)



PEPSICO

PepsiCo (2025)



Aldi Süd (2025)



Panda Express (2030)

Marriott
INTERNATIONAL

Marriott International (2025)

city'super

city'super (2025)^[93]

IHG

HOTELS & RESORTS

IHG Hotels & Resorts (2025)



METROMART

MetroMart (2025)^[94]

Lotus's

Lotus's (2028)^[90]



Hilton
HOTELS & RESORTS

Hilton Hotels & Resorts (2025)



SALADSTOP!

SaladStop! (2025)



Pulmuone

Pulmuone (2028)^[91]

HYATT

Hyatt Hotels & Resorts (2025)



Dairy Queen (2025)

MINOR
INTERNATIONAL

Minor International (2027)

ACCOR

Accor Group (2025)

INSPIRE

Dunkin' (2025)



Nestlé

Nestlé (2025)



Krispy Kreme (2026)



MANDARIN ORIENTAL
THE HOTEL GROUP

Mandarin Oriental (2023)



MILLENNIUM & COPTHORNE
HOTELS plc

Millennium & Copthorne Hotels (2025)

M&S

Marks & Spencer (2017)

COSTCO
WHOLESALE

Costco (no timeline)^[95]

PILLAR 3: WELFARE STANDARDS

This pillar evaluates Welfare Standards for hens raised in cage-free systems. This pillar considers both cage-free welfare standards and general laying hen welfare standards (as long as they apply to hens housed in cage-free systems) and examines mandatory and voluntary standards.

The 18 criteria span welfare on-farm, during transport, and during slaughter and killing. The aim of this pillar is to ensure that higher welfare is achieved in the transition to cage-free farming.

A maximum of 36 points are available in this pillar. Mandatory standards are awarded two points for each criteria, while voluntary standards are awarded a single point. See Appendix II for the full Benchmark criteria.

East Asia

On-farm welfare

All of the countries and regions surveyed in East Asia—China, Japan, South Korea, and Taiwan—received partial points for meeting some of the Benchmark’s on-farm welfare criteria through voluntary standards. None of the governments received full points for meeting criteria through mandatory standards.

All four countries and regions surveyed in East Asia include adequate feed and water and a thermally comfortable environment for laying hens. However, these are merely voluntary standards. China and Japan were awarded points for just two criteria (out of a possible eleven) for on-farm welfare.

South Korea and Taiwan are the only two governments whose voluntary standards extend beyond the basic needs of food, water, and comfortable temperature. South Korea has the most comprehensive of the voluntary standards for on-farm welfare, meeting a total of ten of the eleven criteria, while Taiwan meets six. The voluntary standards in both areas meet the Benchmark criteria for nest boxes, perches, and litter area, and they advise no forced molting.

South Korea’s voluntary standards meet four criteria that are not fulfilled by Taiwan: indoor stocking rates of 9 hens/m² or less, beak trimming limited to infra-red treatment at the hatchery, lighting that provides a natural 24 hour rhythm, and guidance that pullets meant for cage-free farms should be reared in cage-free environments.

While Japan and China’s voluntary standards mention some of these aspects, they lack specificity or are insufficient to fulfill the Benchmark criteria. For example, Japan’s standards suggest beak trimming occurs within 10 days of birth using “the most humane method possible” and do not specify lighting durations, failing to fulfill the Benchmark criteria. Similarly, China’s standards recommend a maximum indoor stocking rate of 12.5 hens/m² and a “science-based lighting regime”, falling short of the Benchmark criteria.

Pecking enrichments in addition to litter are not included in any of the standards in East Asia.

South Korea lifts minimum space requirements for battery cages

In January 2018, South Korea revised its regulations to stipulate that all new laying hen facilities must provide at least 750cm² of space per laying hen,^[96] with all existing farms required to comply by 2025.^[97]

The change was enacted by the Ministry of Agriculture, Food and Rural Affairs following a series of avian influenza outbreaks and cases of contamination with harmful insecticides, as well as hearings held by the Animal Welfare Parliamentary Forum.

While hens in barren battery cages will never be able to exercise fundamental natural behaviors, such policies might be used as transitional measures to advance the shift away from cages in Asia.

Welfare during transport

Taiwan is the only region with mandatory standards that fulfill the criteria for both careful handling during depopulation and no transport of sick or injured animals. China, Japan, and South Korea each received partial points for meeting one of the welfare during transport criteria through voluntary standards, with South Korea's voluntary standards advising against the transport of sick or injured animals and China and Japan's voluntary standards recommending careful handling during depopulation.

No countries or regions specify a maximum journey time in either mandatory or voluntary standards.

Welfare during slaughter or killing

Taiwan is the only region to meet one of the Benchmark's four criteria for welfare during slaughter or killing with a mandatory standard—requiring stunning before slaughter.

China, South Korea, and Taiwan also received partial points for meeting criteria through voluntary standards, with China meeting two criteria, and South Korea and Taiwan each fulfilling one criterion.

Unfortunately, none of the four governments' standards recommend against using live shackling or provide stipulations to reduce the suffering of male chicks during culling.

While Japan has technical guidelines for on-farm euthanasia, the guidelines do not preclude the use of ventilation shutdown and thus do not fulfill this Benchmark criterion.^[98]

Southeast Asia, Australia, and New Zealand (SEAANZ)

On-farm welfare

All eight SEAANZ countries in the survey meet some of the Benchmark's on-farm welfare criteria through either mandatory or voluntary standards. All countries have mandatory or voluntary standards related to basic welfare needs—adequate feed and water and a comfortable thermal environment for hens—which fulfill the Benchmark criteria.

New Zealand and Indonesia are the only countries in the region to require a maximum indoor stocking rate of 9 birds/m² or fewer through mandatory standards, while

the Philippines, Thailand, and Vietnam recommend this in voluntary standards. Mandatory stocking rate standards in Australia equate to approximately 16 birds per square meter, well exceeding the criteria.^[99]

All countries except Malaysia fulfill one or more standards relating to the expression of natural behaviors. Six countries have mandatory or voluntary standards for perches, while five countries have mandatory or voluntary standards for nesting boxes. However, only a minority of countries include standards for both litter and pecking enrichments, which allow for dustbathing, scratching, foraging, and pecking. Indonesia and the Philippines are the only countries in SEAANZ that fulfill both the minimum criteria of 250cm² of litter per bird and the provision of additional pecking enrichments in their voluntary standards.

Australia and New Zealand are the only two countries to prohibit forced molting by any method and to limit beak trimming to infra-red treatment at the hatchery in accordance with the Benchmark criteria.^[100]

Welfare during transport

Thailand was the only country in SEAANZ to receive full points for all three of the Benchmark's criteria on welfare during transport through mandatory standards. Australia, Indonesia, and New Zealand each have mandatory standards for two of the three transport criteria, while the Philippines has mandatory standards for one criterion.^[101] Both Australia and the Philippines also fulfill other criteria on welfare during transport through voluntary standards.

Singapore and Malaysia meet just two criteria for welfare during transport through voluntary standards, while Vietnam is the only country with no animal welfare standards during transportation that fulfill the Benchmark criteria.

Half of the countries in SEAANZ—Australia, Indonesia, New Zealand, and Thailand—have mandatory standards requiring careful handling during depopulation, while the Philippines, Malaysia, and Singapore note this in voluntary standards. Only Vietnam made no mention of this provision.

New Zealand, Thailand, and Indonesia all prohibit the transport of sick or injured animals in mandatory standards, whereas Australia, Malaysia, the Philippines, and Singapore recommend this in voluntary standards.

Australia, the Philippines, and Thailand are the only countries to set maximum journey times as a mandatory standard, with Australia awarded half points for maximum journey times as travel may continue after birds are provided with “water, food, space to lie down and rest.”

Welfare during slaughter or killing

Three countries within SEANZ received points for meeting some of the Benchmark’s four criteria related to welfare during slaughter or killing through mandatory standards, with New Zealand meeting three, Australia two, and Thailand one. Australia, Indonesia, and the Philippines also received points for meeting some criteria through voluntary standards, with the Philippines meeting three criteria and Australia and Indonesia one criterion each. According to a 2023 report on farmed animal welfare in Southeast Asia, chickens constitute 96% of all land animals slaughtered in South East Asia, highlighting the importance of slaughter protections for chickens in the region.^[102]



A tuk tuk ad exclaims “Please say goodbye to cages for hens!” in Thailand • Photo: Sinergia Animal

Australia, New Zealand, and Thailand all require stunning prior to slaughter in mandatory standards. The Philippines includes this as a voluntary standard, while others do not include this criterion. The relevant standards in Singapore were unable to be obtained during the data collection period.

New Zealand is the only country to receive full points for mandatory standards on emergency killing in line with the Benchmark criteria, while Australia and the Philippines have voluntary standards.

Australia and New Zealand both have mandatory standards to reduce the suffering of day-old male chicks during culling, while Indonesia and the Philippines have instituted voluntary standards.

No countries currently recommend against the use of live shackling.

South and West Asia

On-farm welfare

Of the five countries surveyed in South and West Asia—Bangladesh, Bhutan, India, Israel, and Nepal—only Israel and India received full points for meeting some of the Benchmark’s on-farm welfare criteria through mandatory standards. Bangladesh and Bhutan received partial points for meeting some criteria through voluntary standards, while Nepal does not have any relevant mandatory or voluntary standards.

Israel reported the most comprehensive mandatory standards for on-farm welfare, meeting nine of the eleven on-farm criteria. Israel is the only country in the region to meet the criteria of at least 15cm of raised perch space per bird, a minimum of 250cm² of litter per bird; none of the other countries have mandatory or voluntary standards that meet these specifications. India has mandatory standards relating to two of the criteria: adequate feed and water and a thermally comfortable environment.

Although not mandatory, Bangladesh and Bhutan both have voluntary standards relating to the criteria, with Bhutan meeting seven of the criteria and Bangladesh, four. Bhutan is also the only country in the region to recommend the provision of specific pecking enrichments in addition to litter—as highlighted in the *Bhutan Animal*

Welfare Standards and Guidelines;^[103] its voluntary standards also recommend that “induced molting must not be practiced.”^[104]

None of the five countries surveyed currently limit beak trimming to infra-red treatment at the hatchery.

Welfare during transport

Israel has mandatory standards covering two out of three of the Benchmark criteria for laying hen welfare during transport, while India has mandatory standards for one. Both countries have mandatory standards prohibiting the transport of sick or injured animals, while Israel was the only country with mandatory maximum journey times.

Nepal and Bhutan do not have mandatory standards for the Benchmark’s transport criteria, but do offer voluntary standards. Nepal has voluntary standards for all three of the transport criteria, while Bhutan meets two of the three criteria through voluntary standards.^[105]

Bangladesh does not currently have any mandatory or voluntary standards relating to the Benchmark’s transport criteria.

Welfare during slaughter or killing

India has mandatory standards relating to three out of four of the Benchmark criteria on welfare during slaughter or killing. India is the only country surveyed to have mandatory standards requiring stunning prior to slaughter and stipulations to reduce the suffering of day-old chicks during culling. Meanwhile, Israel has mandatory standards for two of the four criteria, and is the only country in the Benchmark to have mandatory standards prohibiting live shackling.

Bhutan and Nepal do not have mandatory standards, but do have voluntary standards which meet some of the criteria, such as emergency killing provisions. Bangladesh does not currently have any mandatory or voluntary standards.

Animal welfare standards in the international policy arena

The importance of animal welfare in international government policy and strategies between regions is increasingly evident.

One example is the recent inclusion for the first time of animal welfare in the OECD Guidelines for Multinational Enterprises on Responsible Business Conduct. The guidelines call on enterprises to respect international animal welfare standards and describe good welfare as: the animal is healthy, comfortable, and well nourished, provided a stimulating and safe environment, ensured humane handling, and subjected only to humane slaughter or killing.^[106] OECD guidelines require that signatory governments—including Australia, Israel, Japan, New Zealand, and South Korea—implement ‘complaint mechanisms’ to facilitate adherence to the guidelines. Furthermore, the OECD highlights the role of government in promoting better conduct for multinational corporations, stating that “there has been a growing recognition that governments play a key role in supporting the effective implementation of Responsible Business Conduct (RBC) standards by providing an enabling policy environment, creating incentives, and exemplifying RBC in their own activities.”

Given the role of animal welfare in achieving the Sustainable Development Goals, it is in the interest of all governments in the region to work towards better animal welfare standards, including enacting cage-free standards and phasing out cage systems, thereby opening pathways for increased cooperation between countries in Asia and those regions that have already enacted cage-free policies.^[107]

CONCLUSION

The majority of the world's laying hens are confined in cages in Asia. Understanding government action on laying hen welfare in the 17 countries represented in the Benchmark is thus fundamental to effecting systemic improvements for laying hens at the global level.

The average score on the inaugural Asia Cage-Free Benchmark is just 26.9 out of a possible 140—less than one fifth of the total points available—revealing that governments have a long way to go to support the cage-free transition.

New Zealand comes out on top of the Benchmark with an overall score of 86—scoring highest or tying for the highest on two of the three pillars—followed by Israel at 78 points and Australia at 62 points. Bhutan ranks fourth highest with 44 points.

Bangladesh, Malaysia, and Vietnam rank lowest in the Benchmark, with overall scores of just four points, followed by Singapore at six points, Nepal at six and a half points, and Japan at eight points.

New Zealand recorded the highest score on the Ending Cages pillar, South Korea has the strongest Policy Framework, and Israel and New Zealand share top spot for Welfare Standards.

The results show there is not a direct correlation between wealth and government support for the cage-free transition. For example, Bhutan ranks fourth in the Benchmark with a per capita GDP of USD \$3,266, outperforming wealthier countries such as Singapore and Japan.^[108]

The Benchmark also highlights differences between regions. On average, countries in South and West Asia score highest for Ending Cages (average score of 13.6), East Asia has the most comprehensive Policy Framework (13.0), and SEAANZ performs best on Welfare Standards (12.9).

Countries in South and West Asia fare the best overall, with average overall scores of 30.7, closely followed by SEAANZ at 27.3. Countries and regions in East Asia have the lowest average overall scores at 21.3.

Lastly, the Benchmark findings indicate that effective enforcement is sorely lacking across the region. Less than one third of governments have enacted financial penalties for violations of laying hen welfare or cage-free standards, while just four governments have publicly-documented, effective enforcement programs.

It is critical that governments in Asia use all of the tools at their disposal to support the cage-free transition. Corporate cage-free commitments alone demand that billions of eggs in Asia are produced in cage-free systems in the coming decade; governments should act within their power to help producers meet and seize this opportunity. A more proactive governmental approach has strong industry support—a 2022 study of Asian egg farmers revealed 72% believe more support is required to adopt cage-free systems, while a majority think the government should provide this support.^[109]

While the Benchmark exposes the scale of the task ahead, it also highlights positive progress made by countries and regions across Asia—from bans on barren battery cage systems in Bhutan and New Zealand to technical training and support in Indonesia and the Philippines, to effective publicly-documented enforcement in South Korea and Taiwan.

We hope that the Benchmark will provide an opportunity for governments in Asia to take stock of their progress and identify effective policy tools to accelerate the cage-free transition. We also hope it will provide impetus for governments that are not yet using the policy tools at their disposal.

APPENDIX I: BENCHMARK SCORES BY REGION

Country/region	Pillar 1 Ending Cages (Max. score 72)	Pillar 2 Policy Framework (Max. score 32)	Pillar 3 Welfare Standards (Max. score 36)	Total Score (Max. score 140)
East Asia				
South Korea	0	22	12	34
Taiwan	0	16	13	29
China	0	9	5	14
Japan	0	5	3	8
SEANNZ				
New Zealand	40	20	26	86
Australia	24	16	22	62
Indonesia	0	6	15	21
Philippines	0	6	15	21
Thailand	0	2	12	14
Singapore	0	1	5	6
Malaysia	0	0	4	4
Vietnam	0	0	4	4
South and West Asia				
Israel	36	16	26	78
Bhutan	32	1	11	44
India	0	9	12	21
Nepal	0	1	5.5	6.5
Bangladesh	0	0	4	4

APPENDIX II: FULL BENCHMARK CRITERIA

Criteria	Subcriteria	Points Allocation
Ending Cages Maximum points: 72		
Ban or phaseout of enriched cages	Ban on existing 'enriched' cages already in force	24
	≤10 year phaseout of existing 'enriched' cages	16
	>10 year phaseout of existing 'enriched' cages	8
Ban or phaseout of barren cages	Ban on existing barren cages already in force	24
	≤10 year phaseout of existing barren battery cages	16
	>10 year phaseout of existing barren battery cages	8
Ban on new cage construction	New cage systems cannot be built after a given year	8
	New barren battery cages cannot be built after a given year	4
Policy targets to phase out cage	There are official, timebound policy targets to phase out all cage systems (non-binding)	8
	There are official, timebound policy targets to phase out barren battery cages (non-binding)	4
Proportion of laying hens cage-free	>50% of the total laying hen flock in cage-free housing systems	8
	10–50% of total laying flock in cage-free housing systems	4
Policy Framework Maximum points: 32		
Official laying hen welfare standards	Government has enacted mandatory cage-free standards	4
	Government has instituted voluntary cage-free standards	2
	Government has instituted general laying hen welfare standards, but not specific cage-free systems	1
Mandatory package or eggshell labeling	Eggs produced in cages must be labeled as 'caged'	4
	Mandatory labeling for some housing systems, but not for eggs from all cage systems	2
Financial subsidies for cage-free systems	Financial subsidies available to encourage uptake of cage-free systems	4
Technical training or support for cage-free system	Technical training or support available for cage-free systems	4
Effective publicly-documented enforcement program	Effective publicly-documented enforcement program to ensure compliance with standards (e.g. routine inspections)	4

Criteria	Subcriteria	Points Allocation
Financial penalties for violating standards	Financial penalties for violating standards	4
Publicly-available official statistics	Government publishes statistics on birds or eggs in each housing system on a regular basis	4
Government-funded research	Government funds or commissions research into hen welfare or housing systems	4
Welfare Standards Maximum points: 36		
Maximum stocking rate	Hens must be stocked equivalent to 9 hens / m ² of indoor space or less (mandatory)	2
	Voluntary equivalent of the above	1
Nest boxes	Nest boxes must be provided at 1 per 7 hens, or 1m ² per 120 hens if group nesting	2
	Voluntary equivalent of the above	1
Perches	Perches must be provided at a minimum of 15cm per hen	2
	Voluntary equivalent of the above	1
Litter	At least 250cm ² of litter per hen must be provided	2
	Voluntary equivalent of the above	1
Pecking enrichments	Specific pecking materials must be provided in addition to litter	2
	Voluntary equivalent of the above	1
Beak trimming restricted	Beak trimming is prohibited or limited to infra-red treatment at the hatchery	2
	Voluntary equivalent of the above	1
Forced molting prohibited	Forced molting by any method is prohibited	2
	Voluntary equivalent of the above	1
Lighting	Light levels must allow all hens to be clearly seen and provide a natural 24h rhythm (≥8h continuous light and ≥6h continuous darkness)	2
	Voluntary equivalent of the above	1
Feed and water	Feed & water must be adequate to maintain full health and promote positive state of wellbeing	2
	Voluntary equivalent of the above	1
Thermal environment	A thermally comfortable environment must be provided, avoiding signs of heat and cold stress	2
	Voluntary equivalent of the above	1

Appendix II: Full Benchmark criteria continued

Criteria	Subcriteria	Points Allocation
Pullets in cage-free environment	Pullets destined for cage-free systems must be reared in cage-free systems	2
	Voluntary equivalent of the above	1
Careful handling during depopulation	All birds must be handled with care during depopulation	2
	Voluntary equivalent of the above	1
Transport of sick and injured animals prohibited	Injured or sick animals must not be transported	2
	Voluntary equivalent of the above	1
Maximum journey times	Maximum journey times must be adhered to <i>Allocate 1 point if the journey may proceed after animals are provided with feed, water and rest at a specified time threshold (0.5 points if voluntary)</i>	2
	Voluntary equivalent of the above	1
Stunning	Birds must be stunned prior to slaughter	2
	Voluntary equivalent of the above	1
Live shackling prohibited	Live shackling of birds is prohibited	2
	Voluntary equivalent of the above	1
Emergency killing provisions	Mandatory provisions to reduce suffering during emergency killing (e.g. for disease control purposes), including a ban on ventilation shutdown	2
	Voluntary equivalent of the above	1
Chick culling provisions	Mandatory provisions to reduce suffering of day-old male chicks during culling, to include: i) instantaneous mechanical destruction (maceration, with reference to proper operation and maintenance) and/or; ii) inert gas mixture (90% nitrogen or argon in atmospheric air; maximum 2% oxygen) and/or; iii) carbon dioxide and inert gas mixture (max. 30% CO2 and 2% oxygen)	2
	Voluntary equivalent of the above	1

Appendix II: Full Benchmark criteria continued

APPENDIX III: FULL BENCHMARK SCORES^[110]

Country / region	Pillar 1 Ending Cages					Pillar 2 Policy Framework							
	Ban or phaseout of enriched cages (24)	Ban or phaseout of barren cages (24)	Ban on new cage construction (8)	Policy targets to phase out cages (8)	Proportion of laying hens cage-free (8)	Official laying hen welfare standards (4)	Mandatory package or eggshell labeling (4)	Financial subsidies for cage-free systems (4)	Technical training or support for cage-free systems (4)	Effective publicly-documented enforcement program (4)	Financial penalties for violating standards (4)	Publicly-available official statistics (4)	Government-funded research (4)
East Asia													
South Korea	0	0	0	0	0	2	4	0	4	4	0	4	4
Taiwan	0	0	0	0	0	2	2	0	0	4	4	0	4
China	0	0	0	0	0	1	0	0	4	0	0	0	4
Japan	0	0	0	0	0	1	0	0	0	0	0	0	4
SEANZ													
New Zealand	0	24	4	4	8	4	0	0	0	4	4	4	4
Australia	0	8	4	4	8	4	0	0	0	4	4	0	4
Indonesia	0	0	0	0	0	2	0	0	4	0	0	0	0
Philippines	0	0	0	0	0	2	0	0	4	0	0	0	0
Thailand	0	0	0	0	0	2	0	0	0	0	0	0	0
Singapore	0	0	0	0	0	1	0	0	0	0	0	0	N/A
Malaysia	0	0	0	0	0	0	0	0	0	0	0	0	0
Vietnam	0	0	0	0	0	0	0	0	0	0	0	0	0

Country / region	Pillar 1 Ending Cages					Pillar 2 Policy Framework							
	Ban or phaseout of enriched cages (24)	Ban or phaseout of barren cages (24)	Ban on new cage construction (8)	Policy targets to phase out cages (8)	Proportion of laying hens cage-free (8)	Official laying hen welfare standards (4)	Mandatory package or eggshell labeling (4)	Financial subsidies for cage-free systems (4)	Technical training or support for cage-free systems (4)	Effective publicly-documented enforcement program (4)	Financial penalties for violating standards (4)	Publicly-available official statistics (4)	Government-funded research (4)
South and West Asia													
Israel	8	8	8	8	4	4	0	4	4	0	4	0	0
Bhutan	0	24	4	4	N/A	1	0	0	0	0	0	0	0
India	0	0	0	0	0	1	0	0	4	0	4	0	0
Nepal	0	0	0	0	0	1	0	0	0	0	0	0	0
Bangladesh	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix III: Full Benchmark Scores continued

Pillar 3 Welfare Standards

Country / region	Maximum stocking rate (2)	Nest boxes (2)	Perches (2)	Litter (2)	Pecking Enrichment (2)	Beak trimming restricted (2)	Forced molting prohibited (2)	Lighting (2)	Feed & Water (2)	Thermal environment (2)	Pullets in cage-free environment (2)	Careful handling during depopulation (2)	Transport of sick and injured animals prohibited (2)	Maximum journey times (2)	Stunning (2)	Live shackling prohibited (2)	Emergency killing provisions (2)	Chick culling provisions (2)
East Asia																		
South Korea	1	1	1	1	0	1	1	1	1	1	1	0	1	0	x	0	0	0
Taiwan	0	1	1	1	0	0	1	0	1	1	0	2	2	0	x	0	1	0
China	0	0	0	0	0	0	0	0	1	1	0	1	0	0	x	0	1	0
Japan	0	0	0	0	0	0	0	0	1	1	0	1	0	0	x	0	0	0
SEAAZ																		
New Zealand	2	1	1	1	0	2	2	2	2	2	1	2	2	0	2	0	2	2
Australia	0	2	2	0	0	2	2	0	2	2	1	2	1	1	2	0	1	2
Indonesia	2	1	1	1	1	0	0	1	2	1	0	2	2	0	0	0	0	1
Philippines	1	1	1	1	1	0	0	1	1	1	0	1	1	2	1	0	1	1
Thailand	1	1	0	0	0	0	0	0	1	1	0	2	2	2	2	0	0	0
Singapore	0	0	1	0	0	0	0	0	1	1	0	1	1	0	N/A	0	0	0
Malaysia	0	0	0	0	0	0	0	0	1	1	0	1	1	0	0	0	0	0
Vietnam	1	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
South and West Asia																		
Israel	2	2	2	2	0	0	2	2	2	2	2	0	2	2	0	2	2	0
Bhutan	1	1	0	0	1	0	1	1	1	1	0	1	1	0	1	0	1	0
India	0	0	0	0	0	0	0	0	2	2	0	0	2	0	2	0	2	2
Nepal	0	0	0	0	0	0	0	0	0	0	0	1	1	0.5	1	0	1	1
Bangladesh	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0

Appendix III: Full Benchmark Scores continued

APPENDIX IV: COUNTRY PROFILES

East Asia

China

Overall Benchmark score	14
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	9
Pillar 3: Welfare Standards	5
Laying hen population ^[111]	1,250,000,000 (2018)
Proportion cage-free ^[112]	3.0% (2018)

Japan

Overall Benchmark score	8
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	5
Pillar 3: Welfare Standards	3
Laying hen population ^[113]	139,036,000 (2018)
Proportion cage-free ^[114]	8% (2018)

South Korea

Overall Benchmark score	34
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	22
Pillar 3: Welfare Standards	12
Laying hen population ^[115]	76,126,000 (2022)
Proportion cage-free ^[116]	6.1% (2023)

Taiwan

Overall Benchmark score	29
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	16
Pillar 3: Welfare Standards	13
Laying hen population ^[117]	36,000,000 (2016)
Proportion cage-free ^[118]	Less than 10% (2023)

Listed by region and in alphabetical order.

Southeast Asia, Australia, and New Zealand (SEAANZ)

Australia

Overall Benchmark score	62
Pillar 1: Ending Cages	24
Pillar 2: Policy Framework	16
Pillar 3: Welfare Standards	22
Laying hen population ^[119]	21,257,932 (2018)
Proportion cage-free ^[120]	More than 50% (2023)

Indonesia

Overall Benchmark score	21
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	6
Pillar 3: Welfare Standards	15
Laying hen population ^[121]	278,590,549 (2018)
Proportion cage-free ^[122]	Less than 10% (2023)

Malaysia

Overall Benchmark score	4
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	0
Pillar 3: Welfare Standards	4
Laying hen population ^[123]	109,000,000 (2017)
Proportion cage-free ^[124]	Less than 10% (2023)

New Zealand

Overall Benchmark score	86
Pillar 1: Ending Cages	40
Pillar 2: Policy Framework	20
Pillar 3: Welfare Standards	26
Laying hen population ^[125]	3,511,512 (2022)
Proportion cage-free ^[126]	More than 50% (2022)

Southeast Asia, Australia, and New Zealand (SEAANZ)

Philippines

Overall Benchmark score	21
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	6
Pillar 3: Welfare Standards	15
Laying hen population ^[127]	98,500,000 (2017)
Proportion cage-free ^[128]	Less than 10% (2023)

Singapore

Overall Benchmark score	6
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	1
Pillar 3: Welfare Standards	5
Laying hen population ^[129]	3,000,000 (2016)
Proportion cage-free ^[130]	Less than 10% (2023)

Thailand

Overall Benchmark score	14
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	2
Pillar 3: Welfare Standards	12
Laying hen population ^[131]	93,000,000 (2017)
Proportion cage-free ^[132]	Less than 10% (2023)

Vietnam

Overall Benchmark score	4
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	0
Pillar 3: Welfare Standards	4
Laying hen population ^[133]	77,070,000 (2019)
Proportion cage-free ^[134]	Less than 10% (2023)

South and West Asia

Bangladesh

Overall Benchmark score	4
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	0
Pillar 3: Welfare Standards	4
Laying hen population ^[135]	301,000,000 (2017)
Proportion cage-free ^[136]	Less than 10% (2023)

Bhutan

Overall Benchmark score	44
Pillar 1: Ending Cages	32
Pillar 2: Policy Framework	1
Pillar 3: Welfare Standards	11
Laying hen population ^[137]	793,728 (2021)
Proportion cage-free ^[138]	N/A

India

Overall Benchmark score	21
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	9
Pillar 3: Welfare Standards	12
Laying hen population ^[139]	402,976,000 (2017)
Proportion cage-free ^[140]	Less than 10% (2023)

Israel

Overall Benchmark score	78
Pillar 1: Ending Cages	36
Pillar 2: Policy Framework	16
Pillar 3: Welfare Standards	26
Laying hen population ^[141]	9,791,809 (2022)
Proportion cage-free ^[142]	17% (2022)

Nepal

Overall Benchmark score	6.5
Pillar 1: Ending Cages	0
Pillar 2: Policy Framework	1
Pillar 3: Welfare Standards	5.5
Laying hen population ^[143]	12,520,000 (2018)
Proportion cage-free ^[144]	Less than 10% (2023)

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- 91 Pulmuone's commitment applies to eggs sold in South Korea. At the time of publication, South Korea was Pulmuone's primary market in Asia.
- 92 Carrefour's commitment applies to Taiwan (2025), Türkiye (2030) and markets operated by Majid Al Futtaim (2032).
- 93 city'super's commitment applies to mainland China, Hong Kong and Taiwan. These were city'super's only markets in Asia at the time of publication.
- 94 MetroMart's commitment applies to the Philippines. At the time of publication, the Philippines is MetroMart's only Asian market.
- 95 Costco has committed to transitioning to 100% cage-free eggs across its international markets, though has not published a timeline.
- 96 EU regulations require that laying hens in 'enriched' cages must have at least 750cm² of cage area per hen, 600cm² of which shall be usable... in addition to other enrichments. See Chapter III, Article 6, paragraph 1. (a). Accessed: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31999L0074>
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99 The Australian Animal Welfare Standards and Guidelines for Poultry stipulate a maximum stocking density of 30 kg/m² (SB 1.14), which equates to approximately 16 birds per square meter based on an average weight of 1.8kg per bird. Accessed: <https://www.agriculture.gov.au/sites/default/files/documents/poultry-standards-guidelines-2022.pdf>

100 Australia will require beak trimming infra-red beam take place at the hatchery within 24 hours of birth from July 2025. The authors decided to award points for this provision for the purposes of the Benchmark.

101 Australia's mandatory standards state that animals must be provided with "water, food, space to lie down and rest" after the maximum time off water, which for poultry is 24 hours. Australia was awarded half of the eligible points for mandatory standards for this criterion.

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