



# Agricultural Policy Briefs



## Animal Welfare

Higher Welfare Alternatives for China's Pigs and Cattle Farming



Deutsch-Chinesisches Kooperationsprojekt  
für nachhaltige Tierzucht und Tierhaltung

中德畜牧业可持续发展合作项目



# Agricultural Policy Briefs



As part of the German-Chinese cooperation project for sustainable animal breeding and husbandry, two recommendations for action (policy briefs) are to be prepared for each of the four central topic areas in accordance with the project objectives and introduced into the agricultural policy dialogue of the DCZ and, above all, the implementing partner, the NAHS. The series 'Agricultural Policy Briefs' offers, in concentrated form, suggestions for the need for political action for each of the four central topic areas:

- Biosecurity & animal identification systems (biosecurity at farm level, development of an animal identification system)
- Innovative breeding approaches (strengthening cattle breeding, promoting the spread of Piétrain breeding)
- Animal-friendly husbandry and performance-oriented feeding systems (animal-friendly husbandry systems, reducing the use of antibiotics & forage harvesting technology)
- Environmental and climate compatibility (reducing odor emissions & greenhouse gases, manure management & strengthening nutrient cycles)

The policy briefs depict the situation in Germany and China on the topics of animal disease prevention, veterinary training, cattle breeding, animal welfare, antibiotic reduction and sustainable energy production in animal husbandry. They are intended to show how both countries deal with various challenges and overcome them in the national context and which mechanisms can also be integrated in China.

Gefördert durch:



Bundesministerium  
für Ernährung  
und Landwirtschaft

aufgrund eines Beschlusses  
des Deutschen Bundestages



中华人民共和国农业农村部

Ministry of Agriculture of the  
People's Republic of China



被委托方: GFA农业技术咨询有限公司  
General Agent: GFA



全国畜牧总站  
National Animal Husbandry Service (NAHS)



德国ADT国际项目管理与咨询公司  
ADT Project Consulting GmbH



## About this publication

This document focuses on promoting sustainable animal breeding and husbandry practices, emphasizing the importance of animal welfare, environmental sustainability, and public health in the context of German-Chinese cooperation. It addresses four critical areas: biosecurity and animal identification systems, innovative breeding approaches, animal-friendly husbandry and performance-oriented feeding systems, and environmental and climate compatibility. By analyzing the regulatory frameworks, agricultural practices, and challenges faced in both Germany and China, the document provides tailored policy recommendations. These include transitioning to higher welfare systems, reducing antibiotic use, improving biosecurity, and adopting sustainable farming techniques. The scope extends beyond immediate challenges, aiming to foster international collaboration, enhance regulatory alignment, and support the development of systems that balance economic efficiency, ecological preservation, and ethical considerations in livestock management.

### **Policy Brief – Animal Welfare**

Berichtersteller: Siyao Shi, China Research Manager

**Deutsch-Chinesisches Kooperationsprojekt für nachhaltige Tierzucht und Tierhaltung**

(3. Phase - PN: CHN 22-01)

## Inhaltsverzeichnis

|     |                                                                                         |    |
|-----|-----------------------------------------------------------------------------------------|----|
| 1   | INTRODUCTION .....                                                                      | 5  |
| 2   | PIG HUSBANDRY .....                                                                     | 7  |
| 2.1 | General overview .....                                                                  | 7  |
| 2.2 | Pig husbandry systems .....                                                             | 8  |
| 2.3 | Tooth reduction and tail docking .....                                                  | 9  |
| 2.4 | Transition towards sustainable pig husbandry .....                                      | 10 |
| 3   | CATTLE HUSBANDRY .....                                                                  | 11 |
| 3.1 | General overview .....                                                                  | 11 |
| 3.2 | Cattle husbandry welfare in China .....                                                 | 12 |
| 4   | EXAMPLES OF GOOD PRACTICES .....                                                        | 14 |
| 4.1 | High welfare pig farming systems .....                                                  | 14 |
| 4.2 | High welfare cattle farming systems .....                                               | 14 |
| 5   | MAIN RECOMMENDATIONS FOR HIGHER WELFARE SYSTEMS FOR PIGS AND CATTLE<br>.....            | 15 |
| 5.1 | General Recommendations for Higher Welfare Systems for Pigs and Cattle' :.....          | 15 |
| 5.2 | Specific Key Recommendations for Higher Welfare Systems for Pigs.....                   | 16 |
| 5.3 | Specific Key Recommendations for Higher Welfare Systems for Cattle.....                 | 17 |
| 6   | RECOMMENDATIONS FOR TRANSITION TOWARDS HIGHER WELFARE ANIMAL<br>HUSBANDRY SYSTEMS ..... | 19 |
| 6.1 | Collective Efforts for A Better and Brighter Future.....                                | 19 |
| 6.2 | Recommended steps towards transition .....                                              | 20 |

## 1 Introduction

Animal Welfare (AW): the physical and mental state of an animal in relation to the conditions in which it lives and dies is 'a vital asset for a more sustainable world'<sup>1</sup> according to the World Organization for Animal Health (WOAH). Factory (or intensive) farming, affecting over 92 billion<sup>2</sup> farmed animals globally each year is recognized as the most severe form of animal mistreatment in today's world by scientists and experts.



Evidence in research has demonstrated that AW issues can not only cause animals to suffer from severe consequences physically such as poor health and high mortality, but also from mental stress and often the complete deprivation of their natural behaviours. New and compelling scientific evidence reveals its impact on human health and the sustainability of our ecosystem: for instance, food security, zoonotic diseases, biodiversity loss and climate change.

### **China is the world's largest livestock producer and consumer who can make the most profound impact by making the transition**

The COVID-19 pandemic played an important role for all countries to re-evaluate people's relationship with nature.

Livestock farming, affecting over 1/5 of the world's population has been prioritized among the top stressors for the health of humans, animals and the ecosystem. According to the World Health Organization (WHO), around 60% of emerging infectious diseases reported globally come from animals. In the last 30 years, 75% of the more than 30 newly discovered human pathogens originated in animals<sup>3</sup>.

---

<sup>1</sup> World Organization for Animal Health (2023). Animal Welfare. [online] WOAH - World Organisation for Animal Health. Available at: <https://www.woah.org/en/what-we-do/animal-health-and-welfare/animal-welfare/>

<sup>2</sup> Compassion in World Farming (2024). Ending factory farming. Available at: <http://www.ciwf.org.uk/factory-farming> [Accessed 30 Jul. 2024]

<sup>3</sup> World Organization for Animal Health (2024). Available at: <https://www.woah.org/en/what-we-do/global-initiatives/one-health/>.

China has surpassed the United States and become the largest livestock producer since the 1990s. The country's rising economic status has led to rapid increase in the average consumption per capita for meat (3.9 times), milk (10 times) and eggs (6.9 times)<sup>4</sup>. Efficiency in livestock production has become a pressing issue. As a result of the ever-growing demand, in modern China farming system, more animals are housed in less land space: which means higher **Stocking Density (SD)**.

According to the National Bureau of Statistics, China's total meat output in pigs, beef cattle, lamb and poultry in 2023 grew by 4.5 % compared to 2022, reaching over 96.41 million tons. Pigs, as *„the most important product of most Chinese people's meat protein source and an industry sector pertinent to people's livelihood“*, remarked by the Ministry of Agriculture and Rural affairs, reached 726.62 million heads including 41.42 million sows in 2023. Steady and persistent increase is also found in beef cattle production, reaching over 50.23 million heads with an increase of 3.8 % compared to the previous year<sup>5</sup>.

As global movements in better animal welfare such as the Animal Sentience Act and progress in banning cages for all farm animals continue to advance in the EU and North America, China's vision to be a global player is exhibited through the country's support for WHO's One Health approach, more emphasize on animal welfare related national-level regulations and increased number of studies and funding for animal welfare research especially in the realm of farm animal welfare.

However, improvements in animal welfare and the practice of better alternatives still require consistent support from policy makers, continued learning and feedback from the industry as well as improvement and efforts from all farmers, especially when it comes to tackling the problems on such a great scale.

Implementing higher welfare alternatives for farm animal species such as pigs and beef cattle require modifications of current farming systems and training for farmers and staff. Such transition will not only benefit animals, but also the economical output, humans and our environment.

Let us embrace a brighter future together by transitioning to higher animal welfare husbandry systems.

---

<sup>4</sup> Food and Agriculture Organization of the United Nations, Statistical Database (FAO, 2017).

<sup>5</sup> 国家统计局信息公开. Available at: [https://www.stats.gov.cn/xgk/jd/sjjd2020/202401/t20240118\\_1946723.html](https://www.stats.gov.cn/xgk/jd/sjjd2020/202401/t20240118_1946723.html)

## 2 Pig husbandry

### 2.1 General overview

Pig welfare issues in intensive farms are among the most severe of their kind, as wrongful practices and poor management can lead to detrimental effects for piglets, gilts, sows and meat pigs depressing genetical performance. Welfare problems in long-distance transport and inadequate slaughter practices are also needed to observe.



While China aims to focus on ‘sustainable and green livestock farming with China Characteristics’<sup>6</sup>, the progress of implementing higher welfare systems for pigs has been restrained mainly by production efficiency, lack of general and species-specific AW knowledge and the complication of diseases.



It is essential for farms to consistently assess the welfare of pigs in all stages of production.

Improving pig welfare on farm should be carried out with appropriate management and assessment measures. Reasonable transition periods can be beneficial to modern China’s farms following proper AW technical guidelines and recommendations.

➔ **Poor husbandry systems and welfare practices for pigs:** all cages, routine mutilations, restricted space and barren housing which deprive animals of natural behaviours should be phased out for all pigs throughout lives.

➔ Sow stalls and farrowing crates pose severe welfare consequences and should be phased out in the future.

---

<sup>6</sup> 农业农村部办公厅关于开展第四批国家农业绿色发展先行区创建工作的通知. Available at: [http://www.moa.gov.cn/nybg/2023/202309/202310/t20231018\\_6438510.htm](http://www.moa.gov.cn/nybg/2023/202309/202310/t20231018_6438510.htm) [Accessed 30 Jul. 2024].

## 2.2 Pig husbandry systems

China is the world's biggest pig producing country, accounting for nearly 50% of the pigs slaughtered globally every year<sup>7</sup>. Unfortunately, today's commercial pig production predominantly operates using caged systems for breeding sows--- individual sow stalls during pregnancy and farrowing crates during lactation.

Sow stalls have been fully banned by law<sup>8</sup> in countries such as Sweden, UK, Norway. The biggest pig producer in Europe: Germany introduced the regulation in 2020<sup>9</sup>. Sows' stalls are also partially banned (allowed up to 4 weeks post service) in all countries of the European Union since 2013 and in some US states since 2023.

Sow stalls restrict gestating sows to a barred, barren environment where they are unable to turn around and can only stand up or lie down. This results in harm to the animal's physical and mental well-being; and deprivation of almost all natural behaviours. These often lead to stereotypical behaviours such as bar biting and chewing, and even depression.

Farrowing crates are sow cages used to restrain the sows around farrowing to prevent piglets from being crushed when the sow lies down. Farrowing crates, often barren, severely restrict the sow's movement, their natural maternal motivation to bond and interact with their piglets, and also prevent the expression of highly motivated behaviours such as nest-building prior to farrowing, leading to frustration and stress. New scientific findings and high welfare pig farms case studies worldwide have provided solutions without using farrowing crates without difference in piglet mortality<sup>10</sup>.

It is important for China's pig farms to phase out these animal welfare husbandry systems that can impede animal health and welfare which in many circumstances, no longer bear significant production advantages.

➔ Husbandry systems with high SD, fully slatted floor and without bedding should be phased out.

---

<sup>7</sup> FAOSTAT 2020. FAO <http://faostat.fao.org/> (2020).

<sup>8</sup> ZANONI, A. (2015). Parliamentary question | Implementation of ban on individual sow stalls, in force since 1 January 2013 in accordance with Directive 2008/120/EC on the protection of pigs | E-000321/2013 | European Parliament. [online] [www.europarl.europa.eu](http://www.europarl.europa.eu). Available at: [https://www.europarl.europa.eu/doceo/document/E-7-2013-000321\\_EN.html](https://www.europarl.europa.eu/doceo/document/E-7-2013-000321_EN.html).

<sup>9</sup> Compassion in World Farming (2020). Germany bans sow stalls. Available at: <https://www.ciwf.org.uk/news/2020/07/germany-bans-sow-stalls> [Accessed 30 Jul. 2024].

<sup>10</sup> CostPigProduction2021\_221117\_WEB.PDF (windows.net)

### 2.3 Tooth reduction and tail docking

Tooth reduction is a form of painful mutilation performed on piglets shortly after they are born, intended to avoid injuries to each other and the sow when fighting over milk supply, especially in systems with mistakes in sow management.

Tail docking is also a common practice conducted without pain relief intended to reduce tail biting. It is a painful procedure that can cause stress, acute and chronic pain and infection which negatively impact the piglets' health and performance.

It is essential for Chinese farmers to note that teeth or tails have important biological and behavioural functions. The existence of these naturally-grown body parts are not the reasons to behaviours such as aggression. Tail biting is an abnormal behaviour that occurs when the animals' welfare needs are not met. Hence mutilations such as tooth reduction and tail docking are not the solutions.

Research findings have showed piglets growing better and heavier at weaning in enriched, free-farrowing systems with higher space allowance without the need to tooth clip. Similarly, meat pigs with intact tails in higher AW systems showed significantly less occurrence in tail biting.

Nowadays, EU regulations demand tooth reduction and tail docking<sup>11</sup> to be the last resort after having made modifications to the environment and SD. In some countries such as Germany, where public pressure to end surgical castration is high, farms rear entire males without castration. Pain relief for castration is commonly used in Denmark and Germany. The combination of both pain relief is used in some countries like Sweden.



➔ Painful mutilations in piglets: such as tail docking and tooth clipping/grinding, castration without proper pain relief in piglets should be phased out.

---

<sup>11</sup> Commission Recommendation (EU) 2016/336 on the Application of Council Directive 2008/120/EC Laying Down Minimum Standards for the Protection of Pigs as Regards Measures to Reduce the Need for Tail-Docking. [(accessed on 19 August 2019)]; Available online: <https://eur-lex.europa.eu/eli/reco/2016/336/oj>

## 2.4 Transition towards sustainable pig husbandry

Poor husbandry systems for meat pigs are commonplace in intensive systems globally. Severe welfare consequences for meat pigs is not only limited to those caused by high SD: such as aggressive and abnormal behaviours including tail biting, but also the deprivation of species-specific natural behaviours such as foraging which lead to frustration and stress. These entirely indoor systems are standardized with fully slatted floors without any bedding materials causing the pigs to develop lameness with a typical rate of 20%<sup>12</sup>. Moreover, these indoor systems are without any opportunity for the animals to experience fresh air or natural light.

In China, finishers at the weight of 80-110 kg can be housed with space allowance less than 0.7m<sup>2</sup> per pig in intensive systems. Lack of space without adequate functional areas such as for dunging and rest can also be problematic for management, posing serious risks for environment control, disease prevention and health surveillance.

The expedited pace of the modernization of livestock farming has resulted in increasing pressure on environmental resources and pollution in China. Since almost a decade ago, the government has explicitly pointed out the issues related to husbandry systems with high SD by the Ministry of Agricultural and Rural Affairs (MARA)<sup>13</sup>. Livestock farming methods that are 'high input, high consumption and high pollution' have been defined as 'unsustainable'<sup>14</sup>. The central government later issued guiding opinions on transitioning to more sustainable and eco-friendly farming practices<sup>14</sup>. Clearly, additional efforts must be made urgently at local levels to mitigate the negative impacts of factory farming and the potential risks to human health and the environment to better align with the central government's requests.

---

<sup>12</sup> KilBride A.L., Gillman C.E., Green L.E. A cross-sectional study of the prevalence of lameness in finishing pigs, gilts and pregnant sows and associations with limb lesions and floor types on commercial farms in England. *Anim. Welf.* 2009;18:215–224.

<sup>13</sup> 于康震副部长在畜牧业绿色发展示范县创建启动视频会议上的讲话. Available at: [http://www.moa.gov.cn/govpublic/XMYS/201604/t20160422\\_5105072.htm](http://www.moa.gov.cn/govpublic/XMYS/201604/t20160422_5105072.htm).

<sup>14</sup> 国务院办公厅印发《关于稳定生猪生产促进转型升级的意见》 Available at: [https://www.gov.cn/xinwen/2019-09/10/content\\_5428833.htm](https://www.gov.cn/xinwen/2019-09/10/content_5428833.htm) [Accessed 30 Jul. 2024].

### 3 Cattle husbandry

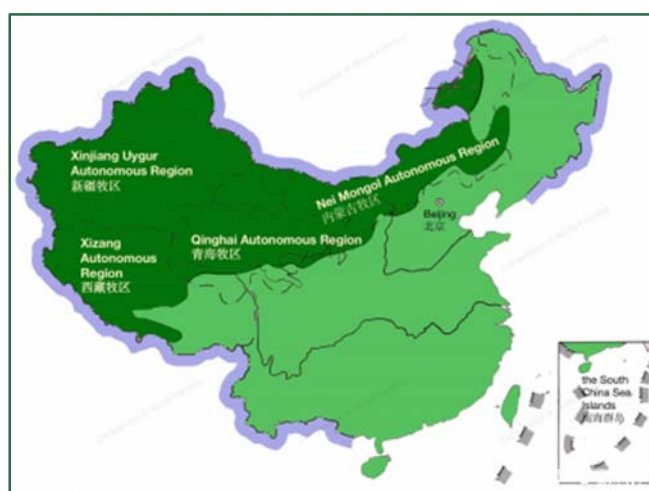
#### 3.1 General overview

Beef cattle farming issues are complex and highly relevant to the sustainability of the environment. Production methods vary significantly globally among different countries and geographical regions within each country. The welfare of veal, beef cattle and end-of-production dairy cows are all integral subjects of the discussion. Like for pigs, transport and slaughter practices are also critical for cattle welfare.



There are currently three main forms of beef cattle production in China:

- (1) Traditional and/or family farms that rely mostly on working cattle and end-of-production dairy cows, each on a small scale but are found across the country;
- (2) Four core pasture-based provinces in Nei Mongol (>10% of national output<sup>15</sup>), Xinjiang, Xizang and Qinghai that are at the heart of the sustainability dialogue.
- (3) Intensive indoor systems that are growing in numbers and scale due to the increasing market demand.



---

<sup>15</sup>

内蒙古牛肉产量跃居全国第一。

Available

at:

[http://www.moa.gov.cn/ztzl/wcbgclz/qglb/202108/t20210825\\_6374826.htm](http://www.moa.gov.cn/ztzl/wcbgclz/qglb/202108/t20210825_6374826.htm) [Accessed 30 Jul. 2024].

### 3.2 Cattle husbandry welfare in China

It is essential for China's agricultural authorities to continue to recognize the core value of pasture-based cattle farming and promote sustainable grazing instead of intensive systems as grazing is pertinent to the animals' welfare.

Appropriate welfare assessment protocols should be developed and implemented for calves, cows and beef cattle and their respective herds.

Cattle have clear physical and mental needs and motivation to perform natural behaviours. In much of the world today, key welfare issues of beef cattle farming include :

- genetic selection for certain traits that lead to physical deformities and health problems
- individual crates/ pens and tie-stalls that severely restrict locomotor activities
- routine mutilations without pain relief
- poor husbandry systems with hard and fully slatted floors with little or inadequate bedding
- insufficient space allowance for separate functions
- lack of outdoor and/or pasture access that result in animals living in dirty conditions
- where noxious gases concentration is high.

Factory-farmed beef cattle are often confined indoor in high SD, large-scale feed lots which can result in up to 70% tail tip lesions<sup>16</sup>, posing risks for tail tip necrosis causing infection and mortality. Fully-slatted floors without bedding can lead to high propensity for lameness and serious injuries. Lack of space allowance can prevent cattle from performing natural behaviours such as walking and grazing, as well as impeding highly motivated social behaviours. Abrupt and early weaning also disrupt innate strong mother-calf bond. Cattle can exhibit abnormal behaviours such as eye rolling due to frustration and boredom.

Main welfare issues for calves born on farm include restricted space allowance, isolation, barren environments with fully slatted floors, routine mutilations such as dehorning, disbudding, castration without short and long-term pain relief, poor feeding and colostrum management, lack of bedding and abrupt weaning.

---

Schrader, L, et al. "The Occurrence of Tail Tip Alterations in Fattening Bulls Kept under Different Husbandry Conditions." *Animal Welfare*, vol. 10, no. 2, 1 May 2001, pp. 119–130, <https://doi.org/10.1017/s0962728600023794> . Accessed 29 July 2024.

End-of-production dairy cattle used for meat also suffer from lameness and other welfare problems due to genetic selection for high milk yields such as mastitis, ketosis, lameness, fertility problems, uterine infection.

- ➔ Poor husbandry systems and practices for beef cattle: veal crates, individual pens and tie - stalls, barren and restricted housing with fully slatted floors, routine mutilations and inadequate provision of bedding and should be phased out in the near future.

## 4 Examples of good practices

### Exemplary Cases in China's Own Backyard

Although animal welfare is a relatively new science in China, there is compelling evidence of positive overlaps found between pig and cattle farming practices in China and the global pursuit of higher animal welfare practices. The National Breed List of Livestock and Poultry Genetic Resources<sup>17</sup> published by MARA in 2020 listed 897 breeds/strains of livestock, including 83 traditional (native) breeds of pigs and 55 traditional (native) breeds of cattle. Many of these traditional breeds have included technical guidelines that clearly indicate improved welfare requirements.

#### 4.1 High welfare pig farming systems

Examples of high welfare systems from pig farms of various regions in China:

- sow-stall free or group housing systems for sows in observation period post insemination (A),
- enriched space for growing pigs (B), and
- free farrowing systems for sows and piglets (C).



#### 4.2 High welfare cattle farming systems

Examples of pasture-based beef cattle farm in Nei Mongol Autonomous Region (D,E)



<sup>17</sup> 国家畜禽遗传资源品种名录 一、传统畜禽 (一)猪 地方品种. (2020). Available at: <https://www.gov.cn/zhengce/zhengceku/2020-06/01/5516427/files/39749a9a56cd446bb8e5ff5d57d5be13.pdf>.

## 5 Main Recommendations for Higher Welfare Systems for Pigs and Cattle

### 5.1 General Recommendations for Higher Welfare Systems for Pigs<sup>18</sup> and Cattle<sup>19, 20</sup>:

To ensure good AW, **three areas should be considered:**

- 1) avoiding physical harm/pain**
- 2) avoiding mental stress,**
- 3) providing opportunities to perform natural behaviours and promoting positive experience**

- Phasing out the use of cages for all animals
- Reducing stocking density
- Banning fully-slatted floor system and providing bedding
- Providing good environments
- Genetic selection for better welfare
- Ending routine mutilations
- Providing outdoor access
- Avoiding long-distance live transport
- Transitioning to humane slaughter methods
- Good management and AW training for staff



---

<sup>18</sup> Nielsen, S.S., Alvarez, J., Bicout, D.J., Calistri, P., Canali, E., Drewe, J.A., Garin-Bastuji, B., Gonzales Rojas, J.L., Schmidt, G., Herskin, M., Michel, V., Miranda Chueca, M.Á., Mosbach-Schulz, O., Padalino, B., Roberts, H.C., Stahl, K., Velarde, A., Viltrop, A., Winckler, C. and Edwards, S. (2022). Welfare of pigs on farm. EFSA Journal, 20(8). doi:<https://doi.org/10.2903/j.efsa.2022.7421>.

<sup>19</sup> Scientific Opinion on the welfare of cattle kept for beef production and the welfare in intensive calf farming systems. (2012). EFSA Journal, 10(5), p.2669. doi:<https://doi.org/10.2903/j.efsa.2012.2669>.

<sup>20</sup> Søren Saxmose Nielsen, Álvarez, J., Bicout, D., Paolo Calistri, Canali, E., Julian Ashley Drewe, Garin-Bastuji, B., Gonzales, L., Christian Gortázar Schmidt, Herskin, M.S., Michel, V., Ángel, M., Padalino, B., Helen Clare Roberts, Spooler, H., Ståhl, K., Velarde, A., Arvo Viltrop, Alice and Margit Bak Jensen (2023). Welfare of dairy cows. EFSA Journal, 21(5). doi:<https://doi.org/10.2903/j.efsa.2023.7993>.

## 5.2 Specific Key Recommendations for Higher Welfare Systems for Pigs

Good management is essential to ensuring the transition to higher welfare alternatives. It is important for pig farms to have a clear goal when making changes to the existing systems, such as phasing out the use of sow stalls and farrowing crates for sows by reducing crating to a minimum number of days while balancing piglet mortality and sow welfare to reach the end goal of “zero confinement”.

It is important for newly built farms or expansions to adopt higher welfare systems or the best available systems and practices directly without wasting resources on poor welfare systems.

### 5.2.1 Better Sow Systems

→ Breeding goals should include genetic selection for better maternal abilities, robust and smaller litter size

→ Group housing of dry sows:

- No sow stalls: sows to be group housed throughout the dry period, including observation period and pregnancy
- Key features and practices:
- SD: a minimum of 3m<sup>2</sup> per sow
- stable groups and good mixing
- solid floor and bedding
- appropriate dietary fibers and manipulable materials
- staff trained to minimize handling stress and at identifying and mitigating welfare issues



→ Free farrowing for lactating sows

- No farrowing crates
- Key features and practices:
- optimal pen size: including sow space allowance of a minimum of 6 m<sup>2</sup>
- good nest site (~50% of sow space) with substrates
- heated and sufficient creep area inaccessible to sow
- functional areas, non-slip, non-abrasive floor
- bedding at all time for thermal and physical comfort
- design to ensure worker safety and waste management



### 5.2.2 BETTER PRACTICES FOR PIGLETS

- Ending routine mutilations:
- tooth reduction (tooth clipping or grinding)
- tail clipping
- No castration without anaesthesia & analgesia
- Ensure early mixing and stable groups



### 5.2.3 BETTER PRACTICES THROUGHOUT LIFE

- Reduced SD: a minimum of 1m<sup>2</sup> for 50-100 kg finishers, 1.2 m<sup>2</sup> per pig for 100-130 kg finishers indoor; a minimum of 5 sq m<sup>2</sup> per boar
- Concrete floor with suitable bedding throughout life, e .g. straw, fermented bedding
- Providing good environment: e. g. air quality, temperature and humidity control
- Promoting outdoor access

## 5.3 Specific Key Recommendations for Higher Welfare Systems for Cattle

It is important for relevant authorities to recognize the importance of sustainable grazing practices for cattle welfare and support such practices. Existing pasture based farms should continue to emphasize on the value of eco friendly practices such as rotational grazing. It is important for new farms to adopt higher welfare alternatives instead of intensive systems.

### 5.3.1 BETTER PRACTICES FOR CATTLE

- Genetic selection for better welfare cattle breeds and dual- purpose breeds
- Ban tie-stalls
- Fully-slatted floors should be prohibited
- Floor should be non-slip with bedding, in addition to or instead of only rubber mats
- Increased space allowance in indoor area to allow for locomotor activities and natural behaviours
- Phase out routine mutilations: disbudding, dehorning, tail docking



- Castration should be done with anaesthesia and analgesia
- Avoid dirty conditions by providing sufficient space and adequate drinking water
- Keep in small and stable groups
- Natural mother-calf bonding rearing
- Brushes in indoor area for comfort
- Outdoor access to pasture
- AW training for staff and handlers
- Consistent monitor and assessment

#### 5.3.2 BETTER PRACTICES FOR CALVES

- Keep in small (2-7) and stable groups during first week of life
- Space allowance of 3m<sup>2</sup> per calf
- Lying areas with bedding and/or deformable surface
- Provision of good quality colostrum up to 6 hours after birth
- ~20% body weight of milk per day until at least 4 weeks of life
- Avoiding abrupt weaning



#### 5.3.3 BETTER PRACTICES FOR DAIRY COWS

- No tie stalls
- At least 1 cubicle, with space allowance of 9m<sup>2</sup> per cow in
- No fully-slatted floor
- Proper design of lying surface: clean and dry, non-slip and with bedding
- Brush in indoor area
- Consistent physical assessment<sup>21</sup>: gait score (lameness), body condition score
- Consistent monitor of mastitis
- Access to pasture



---

<sup>21</sup> (AssureWel) Welfare Outcome Assessment Protocols. [(accessed on 19 August 2019)]; Available online: <http://www.assurewel.org/>

## 6 Recommendations for transition towards Higher Welfare Animal Husbandry Systems

### 6.1 Collective Efforts for A Better and Brighter Future

As animal welfare is a multi-faceted and complex issue, nation-wide transition should be carried out with the support of the central government, and implemented rigorously by multiple stakeholders. Adopting the 'One Health' approach is not only necessary as it focuses on the interlinkage of people, animals and the environment, but also unifies farmers and individuals in China and encourages them to make step-by-step transitions.

**A long-term, futuristic perspective should be adopted and promoted in China**, specifically by firmly and consistently **following three principles** by all stakeholders with integrity to reach the goal of improving pig and cattle welfare:

- ① **Use science-based approach**
- ② **Establish clear objectives for each transitional phase**
- ③ **Develop efficient systems for open reporting and accountability**

The State Council of China is loud and clear about its endorsement for private enterprises, with specific mention to medium, small or family farms in pork production. Guiding Opinions On Stabilizing Pig Production and Promoting Transformation and Upgrading (2019) further offered specific support in development goal, finance and infrastructure, breeding technology, disease prevention and control, transport and slaughter, farm management and sales; as well as in sustainability measures such as waste disposal and resource recycling.

Farms of different scales each have their own distinctive advantages to improve welfare on farm.

- Large producers, often equipped with better management, more resources such as technical support and funding are recommended to carry out clear, step-by-step plans for a minimum of the next 3 to 5 years and make changes by conducting efficient trials.
- Medium sized farms (with around 300 sows), and those raising traditional breeds can resort directly to existing examples of higher welfare systems globally and in China.
- Small and family farms can utilize locally accessible facilities and materials to sufficiently reduce the cost of transition.

## 6.2 Recommended steps towards transition

To effectively transition to higher welfare alternative livestock farming systems for pigs and cattle in China, relevant policy authorities are recommended take the following steps:

### A) DEVELOP NATIONAL-LEVEL REGULATIONS

- 1) Develop species-specific, mandatory animal welfare regulations for pigs and cattle farming respectively on a national-level by 2035<sup>22</sup>.
- 2) Follow up timely with technical guidance and support on the municipal level to ensure proper knowledge transfer and training to individual producer

### B) ENSURE ON-FARM ANIMAL WELFARE

- 3) Develop species-specific standards for pigs and cattle during all stages of production
- 4) Develop clear goals and transition periods to phase out poor husbandry systems, inadequate management and improper practices
- 5) Phase out the use of sow stalls and farrowing crates for sows
- 6) Phase out the use of individual pens and stalls for cattle
- 7) Promote and encourage pasture-based farms instead of factory farms
- 8) Reduce stocky density
- 9) Phase out the use of fully-slatted floor systems
- 10) Phase out routine mutilations
- 11) Ensure the provision of proper enrichment throughout life

### C) INCORPORATE BREEDING GOALS WITH ANIMAL WELFARE

- 12) Introduce animal welfare as an essential component in breeding research
- 13) Emphasize on and promote the animal welfare aspects of transitional breeds in both pigs and cattle

### D) ENSURE WELFARE OF ANIMALS DURING TRANSPORT AND SLAUGHTER

- 14) Develop species-specific welfare criteria for transport and slaughter for pigs and cattle

---

<sup>22</sup> "十四五"全国农业农村科技发展规划. (n.d.). Available at:

<http://www.moa.gov.cn/nybg/2022/202201/202203/P020220412383115646899.pdf> [Accessed 30 Jul. 2024].

15) Phase out long-distance live transport for pigs and cattle

16) Develop mandatory criteria for higher welfare slaughter practices for pigs and cattle

Author contact detail: Siyao Shi,

[siyao.shi@ciwf.org](mailto:siyao.shi@ciwf.org)

Copyright © all rights reserved



**Photo credit:**

- Cover Page (Cattle and piglets): istock licensed
- Page 5 (sow in stall) : Compassion in World Farming (CIWF)
- Page 7 (both pictures): CIWF
- Page 9 (both pictures): CIWF
- Page 11 (cattle): CIWF
- Page 14 (A,B) : Key Lab; (C) Jiangsu YiAi Agricultural Development Co. Ltd 江苏依爱农业发展有限公司山东乳山养殖基地
- Page 14 (D): 金猎手 (2018). 草原牧歌——内蒙古上都蓝旗草原牧场. [online] k.sina.cn. Available at:  
[https://k.sina.com.cn/article\\_2315771230\\_p8a07dd5e00100a1j2.html?cre=tianyi&mod=pcpager\\_fintoutiao&loc=36&r=9&doct=0&rfunc=17&tj=none&tr=9](https://k.sina.com.cn/article_2315771230_p8a07dd5e00100a1j2.html?cre=tianyi&mod=pcpager_fintoutiao&loc=36&r=9&doct=0&rfunc=17&tj=none&tr=9) [Accessed 29 Jul. 2024].
- Page 14 (E) :Nmgnews.com.cn. (2014). 草产业养出‘牛’企业-新闻中心-内蒙古新闻网. [online] Available at: <https://inews.nmgnews.com.cn/system/2017/07/27/012378104.shtml> [Accessed 29 Jul. 2024].
- Page 15 (all pictures): CIWF
- Page 16: Key Lab; Thunder Pig Chessboard Village Base 雷猪棋盘村基地 ;
- Page 17: Thunder Pig Chessboard Village Base 雷猪棋盘村基地 ;
- Page 17 and page 18 (cattle): CIWF