# Why Food Safety Fails in China: The Politics of Scale*

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**Abstract**

This article examines food safety failures in China to cast light on how scale has deeply affected its regulatory politics. Contrary to studies that view China's food safety challenges as primarily resulting from corruption, local obstructionism or weak state capacity, I argue that China's massive production system, unwieldy bureaucracy, and geographic size pose regulators with a more fundamental policy challenge. As they attempt to build an integrated national regulatory regime, regulators must make difficult trade-offs in cost, policy design and applicability that emphasize the interests of certain stakeholders over others, resulting in a contentious "politics of scale." The article assesses four failed scale management initiatives: food safety coordination bodies, campaigns, model production zones, and regulatory segmentation. As China transitions to scientifically assessed, risk-based forms of regulation, its pervasive food safety problem suggests the adaptive limits of China's unitary regulatory structure to manage scale and its ensuing politics effectively in a complex multilevel context.

**Keywords:** China; food safety; governance; scale; regulation; central–local relations; standardization

"The apparent success of the 'Big Thirteenth' Congress of the Chinese Communist Party in October 1987 doesn't explain the mystery of how a billion Chinese live together under the dictatorship of a party whose forty-six million members equal the population of one of our European allies. How can so big a polity cohere?"

John K. Fairbank, "The Chinese behemoth," *New York Review of Books*, 1988

For most students of governance, the scale of the "Chinese behemoth," whilst hovering in the background of our analyses, rarely serves as our primary focus. This article examines China's food safety failures in order to cast light on how China's scale has deeply affected its regulatory politics. With over 240 million

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farmers, 1 million processors, and many millions of distributors, China has struggled to develop a national food safety regime that can effectively integrate diverse interests within a common framework of governance. China's massive production system, unwieldy bureaucracy and geographic size present regulators with unique policy issues of cost, design and applicability.

Interviews with food safety experts reveal a system in disarray despite concerted state efforts: microbiological hazards remain unchecked, supply-chain management is weak and policies are uncoordinated. The number of adulterated food complaints recorded by the China Consumer Association in 2011 had increased by 22 per cent since 2010.[1] While Chinese statistics artificially deflate the number of poisonings and inflate food inspection pass rates, a recent survey conducted by the Pew Research Center shows that, in 2012, 41 per cent of respondents identified food safety as a "serious problem," which was up from only 12 per cent in 2008.[2] Food safety now represents one of the top three governance concerns of China's population, along with inequality and corruption. Why is China's food safety system failing and becoming worse?

In this article, I argue that China's food failures must also be understood as a result of the scale of its food safety system and its ensuing scale politics. In regulatory governance, "managing scale" describes a process of developing a common regulatory framework that effectively integrates numerous actors across multiple levels of governance in highly heterogeneous circumstances. In large-scale systems, regulators must harmonize local best practices with transnational standards, coordinate actors in diverse, global supply chains, and navigate jurisdictional complexity. In order to develop a coherent governance framework that can account for significant variation, regulators make trade-offs in cost, policy design and applicability that emphasize the interests of certain stakeholders over others. "Scale politics" refers to the fierce conflicts that emerge owing to these trade-offs as the state seeks to balance its need for a standardized governing framework while embracing local institutional diversity.

There exists a rich literature on the challenges of achieving policy standardization given China's scale. Scholars have examined the effects of varying degrees of centralization, the use of specialized Party organizations, the setting of hard policy targets, and the launching of managed campaigns.[3] However, in food safety, where a system must simultaneously provide for exacting standardization while accommodating the extensive local diversity of food production, the development of a regulatory system that effectively copes with scale is a significant challenge.

China's food safety problem portends a new dynamic in central–local relations in which neither centralization nor decentralization is sufficient to address scale politics. A decentralized strategy without the strong coordinating hand of the

1 Zhou, Wenting. 2011. "Food safety complaints more common," *China Daily*, 1 November, http://www.chinadaily.com.cn/business/2011-11/01/content_14012784.htm. Accessed 10 March 2012.
2 Huang, Yanzhong 2013.
3 Yang, Dali 2004; Mertha 2005; Heilmann 2005; O'Brien and Li 1999; Heilmann and Perry 2011.

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centre fuels interprovincial disputes. Yet, a centralized approach to food safety is often disconnected from local food safety realities. The management of scale implies the need for a new multilevel division of labour between centre and locality regarding regulatory control.

The challenge that scale politics presents to regulatory integration is reflected in other areas as diverse as environmental protection, labour safety, ocean management and product quality. Regulators must consider whether air and water pollution targets should be set by Beijing, or if they should establish a pollution credit trading system to provide provinces with some flexibility to establish benchmarks.[4] In labour safety, policymakers must evaluate whether private, self-regulatory models may be more effective than a strengthened national labour safety regime.[5] In maritime policy, the National Oceanic Administration must determine how much flexibility to grant local fishery enforcement agencies.[6]

China's food safety system shares many of the pathologies of scale experienced in other regulatory systems, such as the EU, US, and India, with stretched regulatory capacity, mismatched standards between political sub-units, and principal-agent problems between centre and periphery.[7] However, China's scale context differs from these large polities in important ways. China's production base is more extensive and less developed than its Western counterparts.[8] Production practices vary significantly from province to province when compared with the EU and US.[9] Moreover, unlike these other large-scale polities, China lacks a federalist framework that provides a clearer template for regulatory integration.[10] Finally, and importantly, China was forced to place emphasis on food production on a massive scale to feed its population rather than on food safety.[11]

China has struggled to develop a coherent scale management strategy in food safety. The country's food safety regulatory system has evolved largely in reaction to crisis. In terms of scale management, ad hoc policies often work at cross-purposes, fuelling regulatory conflicts. This article focuses on the four dominant strategies of scale management currently employed, all of which are failing: the use of coordination bodies, locally directed model production bases, food safety campaigns, and regulatory segmentation. Each policy encounters different

4 Xinhuanet.com. 2014. "Chinese lawmakers stress supervision of workplace safety," 27 February, http://english.peopledaily.com.cn/90785/8549373.html. Accessed 2 June 2015.
5 "China mulls national pollution permit trading system," *China Daily*, 10 January 2014, http://europe.chinadaily.com.cn/business/2014-01/10/content_17229310.htm. Accessed 1 May 2014.
6 Xinhuanet.com. 2013. "China to restructure oceanic administration, enhance maritime law enforcement," 10 March, http://news.xinhuanet.com/english/china/2013-03/10/c_132221768.htm. Accessed 24 March 2014.
7 For the EU, see Alemanno 2009; for the US, see GAO 2008; for India, see Umali-Deininger and Sur 2006.
8 Gale and Buzby 2009.
9 Interview with independent laboratory president, Qingdao, Shandong, 23 September 2011; interview with US agricultural attaché, Beijing, July 2007.
10 Alemanno 2009.
11 See Ch. 2 in Yasuda 2013.

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challenges: for coordination bodies, the problem is local integration; for model production bases, the challenge is national integration; for campaigns, the shortcoming is poor institutionalization; and, for regulatory segmentation, the problem is policy diffusion.

To examine the root causes of China's food safety failures and the politics of scale, the study draws on more than 170 interviews conducted over 15 months in China from 2009 to 2013. In order to assess the ensuing scale politics of each food safety policy, I engaged with regulators, technical experts, corporate executives and producers at provincial, county and township levels. The study focuses on nine research sites with varying geographic and economic conditions in Sichuan, Zhejiang, Shandong, Yunnan, Ningxia, Beijing and Shanghai. In addition to interviews, the study makes use of 600 pages of government-provided food safety documents to provide a unique perspective on the challenges of regulation from inside the state.

To explore China's scale problem in food safety, I first consider the anatomy of China's food safety crisis based on scale. Each of the four dominant food safety policies currently employed is then examined in terms of the recent history of implementation and effectiveness as a scale management strategy. Finally, I discuss the broader conceptual implications of the politics of scale for the study of regulatory governance in China.

## Anatomy of a Crisis Based on Scale

Popular media accounts regularly assert that China's food safety problems are owing to a lack of political will or insufficient investment in food safety; however, recent reforms suggest otherwise. In the last five years, the state has spent the equivalent of more than US$800 million in upgrading monitoring facilities, building laboratories and hiring food safety personnel.[12] Alarmed by the increasing social unrest caused by widespread food contaminations, central and local officials are highly incentivized to address food safety issues. Global scandals involving Chinese products have placed enormous pressures on central government officials to ensure that China is not exporting its regulatory problems abroad.[13] Revisions to the cadre evaluation system severely punish officials for mass food poisonings. The State Council has already created two special commissions led by senior leaders to address food safety issues.[14] Finally, in 2013, the central government established a newly re-vamped China Food and Drug Administration (CFDA).[15]

12 Meador and Ma 2013.
13 DeLisle 2009.
14 Dyer, Geoff. 2007. "China arrests 774 in crackdown," *Financial Times*, 29 October, http://www.ft.com/cms/s/0/1acf1f42-865f-11dc-b00e-0000779fd2ac.html#axzz2VYjmrM45. Accessed 10 August 2010; Hu, Yinan, and Lei Hou. 2009. "Vice premier to head food safety commission," *China Daily*, 9 March, http://www.chinadaily.com.cn/china/2009-03/09/content_7554541.htm. Accessed 5 March 2011.
15 Roberts 2013.

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To date, China's food safety problems have largely been studied as part of a common set of governance deficits. Scholars have highlighted the pervasive corruption in the food regulation system, which involves collusion between officials and local non-compliant entrepreneurs; the buying of safety certifications; and the manipulation of food safety audit reports.[16] Others emphasize weak media oversight or the still underdeveloped role of courts in tort liability as root causes for China's food safety problems.[17] Other critiques of China's food safety system focus on the problematic role of independent regulatory agencies in an authoritarian state, fragmentation of the food safety bureaucracy, and local obstructionist behaviour to centralized authority.[18] More broadly, it is observed that a general lack of social trust contributes to an environment of non-compliance.[19]

This study does not seek to suggest that China's food safety problems have nothing to do with corruption, a lack of state capacity or weak social trust; instead, it aims only to highlight an often overlooked dimension – scale – as another reason for China's food safety failures. The sheer size of China's bureaucracy results in weak monitoring practices that, in turn, give rise to corruption and other pathologies of governance. Production practices vary significantly across the country owing to the immense number of producers and differences in geography, climate and socio-economic conditions. As a result, producers often disregard central policies that do not comport with local production realities. The lack of state capacity in food safety also stems in part from China's scale. The simple addition of even a single layer of bureaucracy in an already large system can lead to an exponential increase in personnel and substantial distortions and delays.[20]

During the 1980s, the Chinese government pushed forward a series of initiatives to develop the infrastructure for new markets that dramatically altered the scale of production, and would lead to the emergence of new regulatory risks. Prior to the 1980s, China faced constant food shortages.[21] In an effort to stimulate productivity and innovation in the food sector, food production was decentralized to local governments, spurring local investment in food processing.[22] By 1990, the food industry was the third largest industrial sector in China, valued at 144.7 billion yuan, and in 2001, industrial output of food was valued at 954.6 billion yuan.[23] Millions of small farmers co-exist with dragonhead enterprises, the large-scale agricultural companies that emerged in the mid-1990s as part of a government effort to industrialize the agricultural sector.[24]

16 Tam and Yang 2005; Yang, Dali 2008, 2009; Huang, Yanzhong 2013; Calvin et al. 2006
17 Yang, Guobin 2013; Balzano 2012.
18 Liu 2010; ADB, SFDA and WHO 2007; United Nations Office of Resident Coordinator in China 2008.
19 Yan 2012.
20 Lewis 1991.
21 Smil 1995.
22 Hsueh 2011.
23 Liu 2010; Wei, Shiping. 2001. "China's food industry reports healthy progress," *Beijing Youth Daily*, 5 December, http://www.china.org.cn/archive/2002-01/15/content_1025275.htm. Accessed 5 February 2013.
24 Zhang and Donaldson 2010.

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In 1996, there were only 5,381 firms, but this number grew to over 61,286 by 2006.[25]

As supply chains lengthened and became more complex, food safety problems were also transformed. Previously, food safety issues were localized and related to questions of hygiene, the accidental misuse of pesticides and unsanitary conditions in restaurants.[26] However, intense market competition and weak monitoring practices, coupled with a thin commitment to food safety, led to the emergence of new food safety problems. Nationwide scandals involving deliberate food adulteration, the insertion of illegal food additives, the production of fake food and the use of pesticides as food preservatives became more common.[27] These new problems demanded a fundamental restructuring of China's food safety system.

A nascent, but still fragmented, regulatory "system" began to take form in the 1990s. As administrative reforms in the broader economy decoupled food production from the state enterprise system, regulatory control began to concentrate in particular nodes in China's vast state bureaucracy. Regulatory authority for food safety was shared between the Ministry of Health, Ministry of Agriculture, the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ), the Ministry of Commerce, the State Administration of Industry and Commerce, and a host of other agencies involved in the different stages of food production and storage. The fragmented system led to serious gaps in regulatory management, conflicting standards and bureaucratic turf wars across levels of government, between ministries, and among various localities. Beginning in the 2000s, the central government moved forward with major reforms to re-design China's food safety system to cope with the realities of China's increased scale of production.

The notion of managing scale figures in the policymaking process in the following ways. First, regulators must evaluate the feasibility of policies in terms of cost and ease of implementation, taking into account the urgency of the food safety problem. Instead of undertaking a tortuous process of institution building, launching a food safety campaign may be a more cost-effective and timely approach to effect compliance for large numbers of producers. However, ad hoc remedies cannot be a substitute for institutional solutions. Second, regulators must consider the often conflicting goals in policy design to manage scale. A centralized approach to food safety may streamline governance, but it can also fail to integrate local regulatory activity. Conversely, a decentralized system may improve the fit between regulations and local food production, but not cohere to become a standardized system of national regulation. Third, regulators must assess whether broad-based solutions to food safety problems are practicable, given the scale. Can a policy be applicable to all producers or only a specialized subset of elite processors?

25 Huang, Philip 2011.
26 Yan 2012.
27 Ibid.

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Because of these trade-offs, the development of a national food safety system is often a contested political process about how to manage scale. How regulators assess policy feasibility, design and broad-based applicability in the management of scale is often driven more by technocratic concern than by economic interest. But, technocratic disagreement does not preclude fierce political contestation. Some may prefer certain approaches based on cost and ease of implementation. Others may debate the effectiveness of policy designs. Still others may question whether any given solution can serve as an integral part of a national, broad-based system of regulation. In China, food safety policies have so far failed to integrate conflicting regulatory interests in the effective management of scale. Because of the politics involved in assessing trade-offs, these regulatory tensions have led to a breakdown in coordination and a failed food safety system. Scale management necessarily entails scale politics, and this must be recognized.

### *Centralization and coordination*

Following an infant formula scandal in Fuyang 阜阳, Anhui province, in 2003, China's first major food safety initiative involved the development and strengthening of central-level coordination bodies.[28] "Coordination" (*xietiao* 协调) entails setting annual work plans for ministries involved in food safety, facilitating communication between different ministries and levels of government, and resolving disputes arising from bureaucratic turf wars. A central coordinating unit creates a single reference point for the system, and addresses the scale problem by reducing administrative complexity, streamlining accountability and setting clear regulatory goals. When faced with overwhelming jurisdictional complexity, local obstructionism and a mass of standards and rules, the centralization of regulatory control as a scale management strategy gives priority to the need for standardization over institutional diversity.

Since the early 2000s, China has created several coordination bodies to establish central control over its fragmented food safety bureaucracy. In 2003, the State Food and Drug Administration (SFDA) was formed to coordinate China's food safety regulatory bodies by facilitating information sharing and clarifying regulatory responsibilities. Owing to a series of failures involving information flow problems, bureaucratic competition and corruption, the SFDA was swept away in favour of other coordinating bodies.[29] In 2007, the State Council formed a special committee to address food safety challenges led by vice-premier Wu Yi 吴仪. Then, in 2009, the Ministry of Health was designated as the new lead ministry in charge of coordinating regulatory activity. Later, in 2010, a National Food Safety Commission was established and led by vice-premier Li Keqiang 李克强, which would lead food safety committees (FSC) established

28 Prior to 2003, a mix of food safety policies was implemented regarding market access and monitoring. For a detailed account of food safety developments prior to the early 2000s, see Liu 2010.

29 Tam and Yang 2005.

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at each level of government to coordinate regulatory activities. The newest coordination body, the CFDA, was established in 2013, but its effectiveness has yet to be fully examined.

The central government made a strong push to establish coordinating bodies at each level of government. In a series of food safety notifications, plans and circulars, local governments were instructed by central government ministries to form "leading small groups" and "coordinating bodies." Food safety authorities were to develop "organizational strength and leadership" and set "clear responsibility arrangements" through coordinating bodies. In the central government's annual food safety assessment of food safety work at the provincial level in 2011, 70 out of 100 points related to achievement in regulatory coordination and restructuring food safety management in line with central policy aims (Table 1). This mandate is echoed in county-level assessments of food safety management at the township level in which the formation of an operating food safety coordinating body represented 50 out of 100 points (Table 2).[30]

Table 1: **Provincial Food Safety Evaluation Point Allocation**

| **Evaluation Item** | **Points** |
|---|---|
| Organization and system building | 15 Points |
| Government restructuring measures | 55 Points |
| Develop corporate responsibility | 20 Points |
| Effect of government restructuring measures | 10 Points |
| Extra credit | 10 Points |
| Penalties (major food safety incident) | −20 Points |

*Sources:*
"Quanguo shipin anquan zhengdun gongzuo pinggu kaohe xize," 2011, provincial food safety document from author's personal collection.

Table 2: **Township Food Safety Evaluation Point Allocation**

| **Leadership/Organization Evaluation** | **50 Points** |
|---|---|
| Leadership committee formed | 10 Points |
| Districts have FSC | 20 Points |
| FSC targets established | 20 Points |
| **Work Situation** | **50 Points** |
| Coordination | 10 Points |
| Education work | 10 Points |
| Monitoring work | 10 Points |
| Meets county FSC plan targets | 10 Points |
| **Total** | **100 Points** |

*Sources:*
"Shipin anquan gongzuo," 2010, township food safety document from author's personal collection.

30 For in-depth discussions of the cadre evaluation system and its effect on policy implementation, see Landry 2008; Edin 2003.

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Coordinating bodies have operated effectively in some localities, but not everywhere. The Shanghai FDA has been lauded for its success in directing the local food safety system. Foreign experts highlight the agency's high degree of technical expertise and its significant regulatory independence.[31] The Shanghai FDA has been successful in insulating the local market from unsafe foods sourced from other provinces, effectively managing food recalls, and expanding monitoring and surveillance networks. Ningxia's FDA has also been successful in coordinating local food safety efforts, promoting national food safety certification schemes, and facilitating cooperation among provincial, county and township levels of government.[32] However, the Ningxia and Shanghai experiences with coordinating bodies appear to be notable exceptions.

Officials at the provincial, county and township levels of government struggle to understand the role of coordinating bodies in food safety governance, which leads to significant implementation problems. There is uncertainty regarding what "coordination" entails in practical terms. Despite the acknowledged success in their coordination efforts, even Ningxia's provincial officials admit, when asked for details, that a major challenge in facilitating coordination among different food safety agencies is that coordination is a "soft target."[33] While inspections, penalties and food safety campaigns can be counted and recorded in food safety reports, coordination is more difficult to assess. Officials complain that it is difficult to evaluate whether they are facilitating "clear lines of communication," "inter-ministerial contact" or "inter-level planning."[34] Apart from the nominal establishment of committees, most regulatory officials have no real sense of how to actually coordinate food safety activities. Local food safety work is presented in an annual report and then evaluated at a higher level. However, given that a local official's greatest concern is to prevent a major food scandal, which in some localities would lead to dismissal, coordination falls low on the list of food safety priorities.

The ambiguity of the role played by the FSCs in food safety management is exacerbated by the lack of a statutory basis for coordinated activities. Although new regulatory bodies are formed, none of the pre-existing agencies have written mission directives or detailed by-laws governing how to plan coordinated food safety regulation, interact with other agencies and adjudicate conflicts between ministries and different levels of government.[35] For example, when the new SFDA was developed, individuals did not understand how to interact and redirect their workflows in the new system. A former director of the central-level SFDA described the scenario as follows: "It was frustrating because, of course, we have 'food' in our agency name, so people expect us to be in

31 ADB, SFDA and WHO 2007.
32 Interview with SFDA, Ningxia, 16 November 2011; interview with provincial-level officials, multiple ministries, Ningxia, 16 November 2011.
33 Interview with dragonhead enterprise executives, Ningxia, 16 November 2011.
34 Interview, SFDA, Ningxia.
35 Balzano 2012.

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control, but no one listened to us. We took all the blame from the public, but were never empowered to do our job."[36]

Moreover, local officials have failed to integrate new coordinating bodies within the pre-existing local regulatory framework. Since coordinating bodies do not actually replace pre-existing ministries, inter-agency tensions and overlapping regulatory activities persist. Even after the establishment of FSCs, officials complain that the number of agencies involved in food safety remains high: "It is difficult to work with other regulators … There are far too many players in the game and once something leaves our purview we really can't manage it."[37] The establishment of yet another organizational unit just adds to the already burdensome reporting requirements for officials. Agriculture and Aquaculture Bureau officials describe the FSC as a mere "reporting body."[38] County officials assert that the reports that they prepare for coordinating bodies are largely "politically driven," emphasizing targets and development goals decided by higher levels that fail to address real food safety concerns pertaining to water quality, soil conditions and technical capacity.[39]

As a matter of policy design, local regulators contend that centralizing food safety management through coordinating bodies disempowers local actors who have the necessary knowledge to monitor production networks effectively. One researcher noted: "committees at the provincial level are not competent and are too far removed from the ground … no one wants to take responsibility."[40] Husbandry officials in one county, for example, complained that few of the FSCs understood the major risks involved in pig farming and have little experience in monitoring local distribution networks. Moreover, given the limited staffing of the FSCs, monitoring is still directed by local agencies. One official asserted, "these guys have no idea what they are doing. They don't do any of the real regulatory work. They have to depend on the 20 other agencies involved in developing food safety. When the clenbuterol campaign started they didn't do anything."[41]

Owing to the scale politics engendered by new coordinating bodies, the functional role of these agencies has been effectively sidelined in local regulatory enforcement through practical neglect. A nationwide survey of food safety systems in municipalities showed that while 60 per cent of cities had established a new food safety coordination body, 85 per cent of these cities continued to manage food safety through individual, locally guided agencies rather than through FSCs or the SFDA.[42] In some counties, aside from during planning and

36 Interview with SFDA central government official, Beijing, 19 May 2009.
37 Interview with county AQSIQ official, Yunnan, 14 July 2011.
38 Interview with agricultural county bureau chief, 2 April 2011; interview with fishery bureau chief, Sichuan, 4 May 2011.
39 Interview, fishery bureau chief, Sichuan.
40 Interview with food safety policy researcher, Zhejiang University, Hangzhou, Zhejiang, 5 December 2010.
41 Interview with FSC county food safety officials, Sichuan, 13 December 2011.
42 Yang, Lijie, et al. 2012.

reporting periods, food safety committees are little more than "empty conference rooms" for most of the year. One food safety director compared the role of the FSCs to that of the "Japanese emperor" – that is, a position with high visibility but limited legal authority.[43] One concrete indicator of the superfluity of FSCs is that laboratories and technical equipment remain embedded within their individual agencies rather than at the FSC. In one county, the husbandry bureau purchased an expensive laboratory, which continued to be staffed by its own technical personnel: "the county has a 3 million RMB food safety laboratory, and [yet] it's in the husbandry bureau, not the FSC. What does that tell you about the FSC's use?"[44]

As a scale management technique, coordinating bodies have engendered the very type of fragmenting regulatory politics that they were meant to resolve. In the process of standardization, food safety committees have failed to realign interests, have complicated the implementation of food safety policies, and have disregarded the real need of local regulators in developing food safety risk management in line with local conditions.

### *Model production bases*

The development of model production bases preceded the coordination body initiatives but only began to feature prominently in the state's food safety plans in the early 2000s. If coordination bodies emphasize standardization, China's establishment of local model agricultural production bases (*shifan nongye jidi* 示范农业基地, hereafter APB) seeks to use diversity to its advantage to cope with scale. Decentralizing regulatory control through the use of locally directed model APBs addresses the scale problem in the following ways. Regulators do not need to develop a complex national law and instead can delegate regulatory authority to local governments. As a matter of governance, decentralization encourages local innovation and intergovernmental learning. Inspectors benefit from local knowledge and are able to identify non-compliers. As each sub-unit improves food safety, the entire market provides an ever higher level of food safety, albeit incrementally. In effect, the solution to the scale problem via decentralization foregoes an integrative approach from the top-down, and instead builds effective governance from the bottom-up.

Under the APB scheme, local governments are encouraged to establish specialized sites for industrial food production. State officials view modernization of the agricultural sector as key to addressing China's food safety crisis.[45] The 12th Five-Year Plan emphasizes the establishment of production bases as a top priority for the central government.[46] The underlying logic of this approach is that, as

43 Interview, FSC county food safety officials, Sichuan.
44 Ibid.
45 State Council 2007; Calvin et al. 2006.
46 MOA 2011.

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farms become larger and adopt scientific procedures, food safety problems will be resolved.

At agricultural production bases, farmers are taught new techniques and are closely monitored by regulators.[47] As of 2007, there were 24,600 hazard-free production bases, 593 central-level demonstration zones, 100 demonstration counties, and 3,500 provincial-level demonstration zones.[48] Bases are typically over 25 acres in size. Training facilities are developed on site for continuing education on food safety procedures. Most sites are equipped with express testing equipment for pesticide residues and illegal additives.

According to a policy of "one village, one product" (*yipin, yicun* 一品一村) provincial and county governments select villages to produce a specified high-value crop, which is part of an agricultural branding effort.[49] County governments develop specialized local protocols. For example, in a county in Zhejiang, the agricultural bureau guides farmers in bayberry production. In a Sichuan county, producers follow local guidelines on lotus root cultivation and the production of specialty "wild pigs." Given that no national standard exists for these products, local governments are allowed significant leeway to design their own policies.

In terms of food safety management, county-level regulators observe that APBs have made it easier to implement regulations in a cost effective way. Aggregating farmers in a base enables regulators to conduct inspections regularly, whereas regulators typically must spend over a week to reach farms scattered around a single village.[50] Crop specialization also helps to focus training sessions.[51] When farmers follow a uniform schedule for planting, pesticide application and harvest, regulators can identify problems while not overextending their resources. Importantly, APBs offer increased market access for local produce and have substantially improved farmer incomes.[52] In contrast to the unfamiliar national Food Safety Law, model production bases provide a more practical approach to address immediate food safety challenges through monthly training sessions that discuss safe cultivation techniques.

In foregoing standardization, a significant policy design problem is whether a patchwork of locally directed model production zones will cohere to a national solution for food safety or to what is indeed safe. Differences in local agricultural projects can lead to regulatory disparities across localities and fuel interprovincial regulatory politics. Standards may conflict and testing procedures may be irreconcilable. For example, Shandong and Ningxia had different protocols for

47 "Yi lüse fazhan yinling anquan shipin shengchan jidi jianshe" (Using green development as the basis to build safe food production), *Renmin ribao*, 15 August 2012, http://news.hexun.com/2012-08-15/144755593.html. Accessed 1 September 2012.
48 State Council 2007.
49 Han 2007.
50 Interview with township official, Sichuan, 7 April 2011.
51 Interview with agricultural county bureau official, Zhejiang, 12 October 2011.
52 Interview, fishery bureau chief, Sichuan.

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warmhouse production, making it difficult for Shandong food producers to enter the Ningxia market. Ningxia agronomists were unfamiliar with Shandong's warmhouse prototype, and were hostile to outside experts interfering in Ningxia's agricultural development: "of course, the local agronomists didn't like the fact that I had entered into their territory. They had their own greenhouses, but they did not work."[53]

Scholars note that interprovincial conflicts could pose a serious impediment to national integration.[54] A notable example of interprovincial disputes occurred in 2006, following the discovery of excessive carcinogens in turbot fish from Shandong. Shanghai, Beijing, Guangzhou and other provincial governments closed their markets to farm-raised fish from Shandong province. The Shanghai FDA sent an investigative team to the province to investigate fish farming practices in Weihai 威海 and Rongcheng 荣成. During the course of the investigation, the widespread use of nitrofuran and chormycelinin was discovered.[55] Significant disparities in how fishery bases were managed were exposed, and Shanghai refused to allow turbot fish from Shandong into local markets. In this particular case, a series of interprovincial agreements was brokered to "harmonize" standards and production base management, which eventually led to the lifting of the ban.

Another significant problem may be that these varied local standards come into conflict with emerging standards of safety that are supported by international consensus, such as Good Agricultural Practice (GAP). Local standards may indeed improve compliance in some respects, but not if they lead to conflict with international best practices. Food safety experts hold that local variation is permissible, as long as it falls within the parameters of internationally-established safety standards. For example, the ChinaGAP II standard, which has fewer critical control points, was written to assist China's farmers to transition gradually to the more demanding GlobalGAP standard.[56] Undirected local experimentation with no central guidance, however, could lead to substantial food safety coordination problems and leave China in a worse state.

Many experts are sceptical that the APB model is the correct template for China's regulatory development writ large. APBs are largely used for local specialty products and do not necessarily serve as a model for more general food products. Some local officials believe that the APB represents an unattainable ideal of industrialized agriculture that is ill-suited to China's farming context.[57] Many farming households consist of illiterate and elderly people who find safe

53 Interview with dragonhead executive, Ningxia, 15 November 2011.
54 Thompson and Hu 2007. China watchers will recall that, in the early 1980s, local protectionism Balkanized China's internal market for certain resources.
55 China.org.cn. 2006. "Shandong bans sales of contaminated turbot," 20 November, http://www.china.org.cn/english/health/189526.htm. Accessed 10 March 2013.
56 Interview with food safety expert, Qingdao, Shandong, 18 September 2011.
57 Interview with township official, Yunnan, 18 July 2011; interview with township official, Yunnan, 19 July 2011.

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farming techniques to be burdensome and difficult to learn. Elderly farmers on one base declared that they are rarely permitted to participate in training sessions and that government officials largely ignore them during the planting season.

In sum, a decentralized scale management strategy uses local knowledge and local innovation to increase compliance. However, the flexibility offered to localities to experiment with agricultural techniques creates problems for national regulatory integration. Differences in local standards may lead to regulatory conflict, and local solutions may fail.

### *Food safety campaigns*

Despite state efforts in the development of coordinating bodies and model production bases, major food safety scandals continued to emerge throughout the 2000s. Following the infant formula scandal in 2008, the state launched campaigns with increasing frequency aimed at unscrupulous producers and malfeasant bureaucrats. As a scale management strategy, campaigns can be a cost effective method to manage a large, diverse polity. Mass mobilization cuts through administrative complexity. These efforts are less about institution building, which can be time consuming, and are more focused on setting examples, "striking hard" and punishing non-compliant individuals. Intensive bursts of regulatory activity can help to promote a climate of regulatory compliance and restore confidence in government. Directed campaigns provide a clear signal from the centre that food safety issues are important and of immediate concern. In effect, these ad hoc initiatives instil policy coherence throughout the country by realigning incentives towards food safety, at least in the short term.

Campaigns are a common feature of Chinese-style governance and reflect an inherited revolutionary tradition from the country's Maoist past. Food safety campaigns can be broadly categorized as (1) "strike hard" campaigns (*yanda xingdong* 严打行动), (2) government rectification campaigns (*zhengzhi xingdong* 整治行动), and (3) holiday investigation campaigns (*jieri xuncha xingdong* 节日巡查行动). Strike hard campaigns are initiated at the central and provincial levels and focus on recent food scandals. For example, in 2011, a nationwide campaign was launched following the discovery of gutter oil and clenbuterol in pig feed.[58] These campaigns serve a dual purpose by restoring faith in government regulators and instilling confidence among consumers.[59] A typical strike hard campaign involves the arrest of perpetrators of food safety violations, food company executives, and unlicensed producers.[60] Highly directed short-term

58 Xinhuanet.com. 2012. "Over 100 arrested for making new-type 'gutter oil'," 3 April, http://news.xinhuanet.com/english/china/2012-04/03/c_131504678.htm. Accessed 11 June 2013.

59 Interview with independent producers, Jiangsu, 15 September 2011.

60 Yao, Peishuo. 2012. "Guanfang yaoqiu yanda shipin anquan weifa fanzui jianchi zhongdianzhiluan" (Government demands that food safety violation crimes are severely punished), *China News*, 3 July, http://finance.chinanews.com/jk/2012/07-03/4005579.shtml. Accessed 10 June 2013.

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targets feature prominently in the annual work plans of local governments. For example, following the 2008 melamine scandal, inspections of all milk stations for melamine within a county in Sichuan were highlighted as a key task in the annual food safety plan.[61]

With a specific focus on government officials, government rectification campaigns may be conducted in tandem with strike hard campaigns. Officials found to be in collusion with food safety enterprises or who fail to punish noncompliant companies are disciplined. In 2012, the Central Disciplinary Inspection Commission investigated over 300,000 cases related to food safety, and 40,000 officials were disciplined for regulatory abuse or negligence.[62] During one recent campaign, evaluators were instructed to ensure that "officials follow all procedures, did not simplify procedures, did not recognize certifications from other counties, and kept thorough records."[63]

Holiday investigation campaigns are conducted with a focus on distribution points and dining establishments prior to significant holidays during the calendar year when consumption of food is expected to increase dramatically. In addition to inspections, officers promote food safety by passing out information pamphlets and making public food safety pronouncements.[64]

In terms of feasibility, from the perspective of the central government, food safety campaigns can be a cost-effective tool to realign incentives across a highly diverse production context. However, in contrast to the demonstrated effectiveness of China's "managed campaigns" in other contexts, food safety campaigns have fuelled bureaucratic tensions at the lower levels of government.[65] Since the early 2000s, campaigns have been launched each year to target illegal additives, corrupt officials and fake food products. But, with little support from the central government, much of the cost is increasingly borne by local governments, giving rise to resentment. Officials in several counties explained that, for many campaigns, local governments do not have sufficient funds or the necessary testing equipment.[66]

As a matter of policy design, the strength of a campaign lies in its effectiveness as a governance tool that can address food safety problems in a timely fashion. Campaigns forego institution building, which can be an intensely contentious process, particularly given the diversity of interests in food safety. In the short term, regulators emphasize that campaigns do much to restore confidence in

61 XX County Annual Food Safety Work Plan, food safety document No. 10, from author's personal collection.

62 Xinhuanet.com. 2012. "More than 540,000 grassroots officials punished for discipline violations," 11 October, http://news.xinhuanet.com/english/china/2012-10/11/c_131900598.htm. Accessed 11 June 2013.

63 XX County Campaign Report, food safety document No. 87, from author's personal collection.

64 XX Township Food Safety Work Report, food safety document No. 82, from author's personal collection.

65 Heilmann and Perry 2011. For a discussion regarding the potentially negative effects of campaigns, see Wedeman 2005. On campaign governance and its competitive role with institutionalization of a professionalized bureaucracy, see Trevaskes 2002.

66 Interview with township official, Sichuan, 6 March 2011; interview, county AQSIQ official, Yunnan.

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the market. Following an incident in a county in Jiangsu province involving excess pesticide residues, producers asserted that quick action from Nanjing helped to prevent the collapse of food prices.[67] However, others highlight that institution building is required for the long-term prevention of food safety scandals. Both of these regulatory objectives are important for the development of a food safety system. However, short-term campaign-style solutions have often conflicted with long-term rational regulatory development. Officials are increasingly questioning the effectiveness of so many food safety campaigns.[68] Aside from references in food safety reports to arrests made and penalties levied, it is difficult to assess whether food safety has actually improved over the long term. In many cases, non-compliant food processors simply move to another location and continue to produce substandard foods. One producer confessed, "the government usually offers no real help … but [during a campaign] … they come around and inspect and make you do a lot of paper work … but then go away."[69]

Officials also admitted that the constant barrage of campaigns has interrupted routine monitoring and surveillance work.[70] Because new food safety implementation measures are still being written, food safety campaigns continue to take precedence. During the recent clenbuterol campaign, officials in one county had to stop important day-to-day regulatory monitoring activities to conduct urine tests in all farms with more than 50 pigs, which included several thousand farms. The ad hoc nature of campaigns also contribute to regulatory uncertainty, as food safety goals are constantly changed. One official complained, "we are at a loss as to how to handle food safety, there are standards, but with campaigns, these might change or move on."[71] Local government officials are also concerned by the "one size fits all" nature of campaigns, often referred to as "cut by a single blade" policies (*yi dao qie* 一刀切). Often the knee-jerk reactions to food safety scandals from central government do not reflect local food safety concerns. For example, during the recent anti-additive campaign, officials in one county pointed out that the farmers in their jurisdiction were so poor that it was highly unlikely that additives had been used in production, yet everyone was still inspected.[72]

Food safety campaigns feature prominently in China's state-led food safety governance. As a scale management solution, these initiatives provide a cost-effective, broad-based means to orient regulators, producers and consumers towards food safety. However, the frequent use of campaigns by central and

67 Interview, independent producers, Jiangsu.
68 Interview with producer association leader, Yunnan, 18 July 2011; "China makes arrests over food," *The Wall Street Journal*, 5 August 2011, http://online.wsj.com/article/SB10001424053111903885604576487780529072912.html Accessed 10 June 2013.
69 Interview with cooperative member, Sichuan, 2 April 2011.
70 Interview, FSC county food safety officials, Sichuan; interview, county AQSIS official, Yunnan.
71 Interview, county AQSIS official, Yunnan.
72 Interview with township husbandry chief, Yunnan, 15 July 2011.

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provincial officials fuels resentment among local officials who are tasked with their implementation. While campaigns may address short-term goals, they crowd out the long-term institutionalization of food safety procedures.

### *Regulatory segmentation*

The export sector operates a specialized regulatory regime that developed independently of the domestic system in the 1990s. The export sector has been largely insulated from many of the food safety management problems that plague the domestic sector. Chinese government reports show that the inspection pass rates of Chinese food in foreign countries remain high at 99 per cent.[73] This claim is supported by the 2007 customs data from foreign governments, which indicate that Japan only rejected 0.58 per cent, the EU 0.2 per cent, and the US just below 1 per cent of Chinese food imports.[74] The relative effectiveness of China's export food safety programme results from the "regulatory segmentation" of its export and domestic sectors.

In essence, segmentation addresses the challenge of managing scale by reducing the diversity of the system. Segmentation may be used to implement regulatory controls gradually where comprehensive reform is impractical given the costs and lack of technical capacity. A closed regulatory system also allows the government to tailor the food sector to more exacting safety controls. Limiting the system to a certain class of producers facing similar market pressures and food safety risks facilitates the development of food safety policies that are more aligned with producer interests.

Food safety in the export sector is managed by AQSIQ, which restricts the number of exporters by a strict licensing system, and subjects exporting plants to additional monitoring and inspections.[75] As of 2007, only 12,714 enterprises were formally registered with the AQSIQ registration system.[76] Selected enterprises are assisted in attaining and maintaining a Hazard-Access Critical Control Point System (HACCP). The government established the Development Fund for Export Brands to help firms with marketing efforts abroad and procuring professional assistance in brand development. Training is offered to all export enterprises on a range of areas to enhance technical standards, food safety monitoring and the attainment of international certifications.

Regulators and producers acknowledge that the cost of implementing a segmented export sector strategy is high. However, they understand that the small-scale and exclusive export sector leads to a more responsive and efficient market. Because investments in food safety are significant, exporting producers must sell their produce at a higher price. In the domestic sector, pervasive

73 State Council 2007.
74 United Nations Office of Resident Coordinator in China 2008.
75 AQSIQ 2011.
76 State Council 2007.

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mistrust of food production and the weak regulatory system mean that consumers are unwilling to pay a premium for quality food. In the export sector, producers are more closely monitored by government officials and third-party actors in order to preserve consumer confidence and justify high prices.

Importers support the reduced scale of the Chinese export system, preferring to work with an elite set of reliable producers that can supply high quality and safe food. EU companies work directly within China's export licensing system and refuse any product that does not comply with AQSIQ's stringent food safety requirements. Moreover, EU food safety officials would prefer that the volume of trade from China be reduced in order to ensure higher levels of food safety.[77] Japanese food safety officials permit only a subset of China's licensed export enterprises to export food to Japan.

Officials maintain that the use of a closed export system is highly suited to China's current stage of development. China's own domestic standards are less exacting than those of most of its trading partners, particularly Japan and now the United States.[78] Thus, creating a separate, controlled system for exports provides China with the necessary flexibility to tailor its export food sector to the specific requirements of importers. For example, China adopts Japanese labelling requirements and employs Japan's quality standards for product size, shape and colour.[79] The closed system also enables AQSIQ to monitor a select number of licensed farmers closely rather than to dissipate its limited resources to cover 240 million farmers who often use non-standard production methods. Moreover, a separate export sector regulatory regime permits focused and direct investment in food safety for high-value products.

Rather than solve China's scale problem, segmentation sidesteps the nature of its food safety governance challenge. Some international observers contend that the export sector can serve as a model for China's domestic food safety system.[80] However, extending a system based on segmentation to such a diverse producer base facing different market conditions has proven problematic.

Regulators in the domestic sector do not share the same risk management perspectives as those in the export sector. Exporters who seek to enter the domestic market assert that domestic regulators are considerably less professionalized compared to their counterparts in the export sector.[81] Domestic officials set unrealistically high food safety standards for unfamiliar products and resist the introduction of new products even from reputable producers. One exporter commented that, "they aren't that well trained and create unrealistic standards to

77 Interview with EU food safety official, Beijing, 13 April 2011.
78 The recent 2010 US Food Safety Modernization Act has specified more stringent requirements.
79 Chen, Chen and Shi 2005.
80 ADB, SFDA and WHO 2007; United Nations Office of Resident Coordinator in China 2008; Calvin et al. 2006.
81 Interview with food safety auditor, Qingdao, Shandong, 29 November 2011; interview with exporter, Qingdao, Shandong, 22 September 2011; interview with export–import food producer, Qingdao, Shandong, 18 September 2011.

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protect themselves."[82] One international food safety auditor complained: "More must be done to ensure that standard setting is based on scientific risk analysis, and the integrity of testing procedures is protected."[83] While officials do support a "scientific" approach to regulation, they are unwilling to relinquish control over regulatory processes to technocratic experts. Exporters complain that local government officials in the domestic sector do not respect the impartiality of scientists.[84]

Food exporting enterprises also express reservations about entering the domestic sector due to the persistent resistance of farmers to food safety practices.[85] Executives cite low levels of education, lack of exposure to global food safety standards, and the lack of experience with supply chain management among domestic producers.[86] Given the short shelf life of most food products and the high risk of microbial contamination, farmers must operate according to strict schedules and standardized procedures. Local producers resent the overbearing, ill-informed and costly surveillance programmes of large multinationals, and are known to actively subvert food safety protocols. Thus, most export managers conclude that export practices cannot be replicated in the uncontrolled domestic sector. One exporter observed, "the domestic market is not really capable of meeting such standards … pursuing standards would bankrupt the vast majority of farmers … so the real bleed over into the domestic sector is not possible."[87]

Regulatory segmentation addresses the scale problem by delimiting the scope of a governance system. The data suggest that the export sector has successfully instituted a food safety management system. But, the extension of that success to the domestic sector is problematic: global best practices cannot be easily diffused and export producers cannot control local producer networks. Regulatory segmentation may integrate regulatory interests to a limited scale, but fails as a broad-based solution.

## The Trade-offs of Scale Management

China has been unable to develop a scale solution for its food safety crisis that accommodates conflicting regulatory interests regarding feasibility, policy design and broad-based applicability. Centralization through coordination bodies may streamline authority but this approach often alienates local officials. Moreover, to date, coordination bodies lack both adequately qualified personnel and implementing guidelines. Decentralization through model agricultural production bases may produce a better fit for regulatory rules and local food production

82 Interview, export–import food producer, Qingdao.
83 Interview, independent laboratory president, Qingdao.
84 Ibid.
85 Interview, exporter, Qingdao; interview, export–import food producer, Qingdao; interview with export company "F," Qingdao, Shandong, 19 September 2011.
86 Interview with exporter, Qingdao, Shandong, 22 September 2011.
87 Ibid.

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contexts, but there is no mechanism in place to assure that local projects will cohere to a national food safety system. Launching national campaigns is a cost-effective approach to manage scale and realigns incentives through mass mobilization, yet the increasing frequency of campaigns reduces their effectiveness and impedes institution building for day-to-day food safety management. Regulatory segmentation reduces administrative complexity by creating focused regulatory regimes that are ring-fenced to deal with the specialized needs of a particular sector, thereby making it easier to implement policies. However, the closed nature of a segmented approach makes it difficult to expand to other contexts. Each food safety approach has its strengths but cannot serve as the core of a national food safety system.

Table 3: **The Trade-offs in Scale Management**

| | **Cost/Feasibility** | **Policy Design** | **Applicability** |
|---|---|---|---|
| Coordination body | Implementation of "coordination" policies unclear | Streamlines authority, but alienates local officials | National |
| Model production base | Central government released from primary responsibility; focused implementation at local level produces better fit | Uses local knowledge to advantage, but can lead to interprovincial conflict | Elderly, illiterate, small-scale farmers excluded |
| Campaigns | Cost-effective alternative to institution building | Short-term improvements in consumer confidence, but long-term consequences for institution building | National |
| Segmentation | Focused implementation more manageable; aligns regulatory interests despite high costs | Specialized regime focused on elite producers; tailored to food safety needs of importers | Barriers to policy diffusion |

A question to be considered is whether, in terms of scale management, China's existing food safety policies can be combined in a way that will draw from their strengths while addressing weaknesses. Some aspects of centralized and decentralized approaches to food safety might be employed to provide a common regulatory framework while permitting some institutional diversity. However, few polities have the opportunity to build an ideal regulatory system from scratch. China's food safety system has largely developed as a reaction to crises rather than rational regulatory development. Since the 2000s, the central government has restructured the food safety system at least five times in major respects, and has implemented many more minor reforms. Institutional artefacts from previous policies mix with new agencies and regulatory actors. The old SFDA offices, which were stripped of their coordinating role in 2008, co-existed with the new food safety committees. The recent 2013 food safety re-organization created a new regulatory framework. This included the establishment of the

National Health and Family Planning Commission, which is in charge of developing standards, and a restructured CFDA, which is responsible for the implementation of food safety laws. In addition, the Food Safety Law is currently being amended again and is likely to be formally enacted in late 2015.[88] Local officials are confronted with conflicting pressures as ministerial and agency roles are shuffled and re-shuffled. Food safety authorities are encouraged to establish their own regulatory rules, only to have their institution building interrupted by intermittent national campaigns. Cross-cutting pressures have fragmented interests and have resulted in failed regulatory coordination.

Important variations in the effectiveness of certain scale management policies should be noted. Coordinating bodies have operated successfully in Shanghai and Ningxia. APBs have performed strongly in counties in Sichuan and Zhejiang where governments have been able to invest in their development. In Yunnan, however, geographical constraints make it difficult to establish large-scale APBs. In terms of regulatory segmentation, private sector food safety auditors note that while the diffusion of export sector practices has been unsuccessful in the inland provinces, in Shandong, where most exporters are based, domestic producers have increasingly adopted new risk management techniques. Campaigns that have been focused on clear targets have been successful in ferreting out certain illegal additives. Increasingly, food safety experts have observed that certain illegal pesticides are difficult to purchase on the market largely owing to campaign efforts. To be sure, the effective implementation of China's scale management can vary from place to place. But, when these policies do fail, a predictable pattern of unmitigated scale politics emerges.

## Conclusion

This article has shown that, despite the central government's best intentions, China's existing approaches to manage scale have fallen short and instead have fuelled regulatory tensions arising from the politics of scale.

Viewing China's food safety challenge as a problem of scale will help us to assess the trade-offs involved in other proposed policy approaches. For example, the latest restructuring of China's food safety system follows a centralizing logic. The CFDA is now the highest food safety authority in China in charge of implementing food safety regulations. The latest re-draft of the Food Safety Law specifies that the CFDA is likely to implement rules that demand the tighter supervision of supply chains and the closer monitoring of local governments.[89] However, it is unclear how exactly the CFDA will partner with local governments. Moreover, at the central level, the CFDA must still

88 Balzano, John. 2014. "Three things to watch for in Chinese food safety regulation in 2014," 5 February, http://www.forbes.com/sites/johnbalzano/2014/02/05/three-things-to-watch-for-in-chinese-food-safety-regulation-in-2014/. Accessed 1 June 2014.

89 USDA 2013.

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coordinate with the National Health and Family Planning Commission, the Ministry of Agriculture, and AQSIQ. In 2014, the government also announced plans for a new food police force that will assist the CFDA with investigations – it is unclear where this unit will sit in the food safety framework.[90] As such, based on what has been observed with previous coordinating bodies, the CFDA may well fall victim to similar obstacles to effective governance through regulatory integration.

In contrast to the CFDA initiative, others have called for a provincial solution to China's food safety problems. Drew Thompson and Ying Hu contend that a provincial solution could improve food safety management.[91] Regulators would be closer to the ground and could develop strategies better suited to local production conditions. However, the question of how to manage interprovincial disputes has been left unanswered. How to provide a common framework of governance that can integrate institutional diversity within a highly political context remains a key challenge.

China's struggle with food safety reflects a scale management framework that is poorly adapted to meet the requirements of modern regulatory governance. Standardization has never been the Chinese state's strongpoint in implementing policy. Central laws are written in broad terms to permit local governments to implement laws in line with local conditions (*yin di zhiyi* 因地制宜). However, as the recurring cycles of "releasing" and "gathering" of regulatory control suggest, the system has struggled to strike an effective balance between the need for standardization and local regulatory autonomy. The constant flux between centre and locality provides an uncertain foundation for a clear division of regulatory responsibilities. As its trading partners place increasing emphasis on the adoption of global standards such as Good Manufacturing Practice (GMP), GAP, and ISO certification, China must follow suit in its own domestic markets. These evolving standards presuppose the existence of a clear legal framework for coherent regulatory integration that promotes safe food for consumption no matter where people reside.

China's policymakers may find that the EU's multilevel approach to food safety provides guidance for the effective management of its own scale problems. As in the EU, a similar approach would focus the authority of the central government on managing the "Chinese common market" while facilitating positive integration of provincial food safety systems. Provinces would be empowered to develop their own food safety systems but would have to comply with minimum national food standards to engage in commerce in other provincial markets. Provinces would have representation in central-level decision-making bodies concerning the development of common market standards, risk assessments and

90 Balzano, John. 2014. "The food police: China proposes a plan for a special unit for food and drug safety violations," 20 April, http://www.forbes.com/sites/johnbalzano/2014/04/20/the-food-police-china-proposes-a-plan-for-a-special-unit-for-food-and-drug-safety-violations/. Accessed 1 June 2014.

91 Thompson and Hu 2007.

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enforcement policies. The primary political problem of this approach is that the multilevel framework would require a reconfiguration of China's unitary governance structure.

Policy failure in the effective management of scale in the Chinese behemoth could have far-reaching and unintended effects. With Chinese food exports constituting an ever larger share of foreign food supplies, China's food safety problems may quickly become a problem for the rest of the world. More significantly for China, the state's inability to provide its 1.3 billion citizens with food that is safe to consume foreshadows a major governance crisis. Corruption and inequality may constitute longer term challenges to the Party's authority; however, the lack of food safety, which threatens basic human survival, could be equally explosive, confirming the basic truth of the old adage that "all nations are but seven meals from revolution."

**摘要:** 通过调查中国的食品安全问题, 这篇文章意在阐明规模对监管政治产生了怎样的深远影响。之前的研究强调中国所面临的食品安全挑战主要源于腐败、地方政府的蓄意阻挠、或者缺乏国家能力。与以往的研究不同, 我认为中国庞大的生产系统、臃肿的官僚体系、以及巨大的地理规模给监管机构造成了更根本的政策挑战。监管机构在建立国家综合监管体制的过程中, 必须在政策成本、设计和实用性之间做出艰难的选择。而这将置一部分利害关系人的利益于他人之上, 从而导致具有冲突性的 "规模政治"。本文评估了四个不成功的规模管理举措: 食品安全协调机构, 食品安全运动, 示范生产区试验以及监管权细分改革。随着中国的监管体制正逐步转型至基于风险的科学评估系统, 泛滥的食品安全问题说明中国单一制的监管结构在如何适应有效的规模管理、处理多层级体系中复杂的政治关系这两方面存在着局限性。

**关键词:** 食品安全; 治理; 规模; 监管; 标准化

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