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# **Food losses and food waste in China: A first estimate**

**Chong Li**

**ON BEHALF OF**

**Gang Liu, Xiaojie Liu, Xue Li**

**Institute of Geographic Sciences and Natural Resources Research, CAS**

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# Food losses and food waste: a global concern

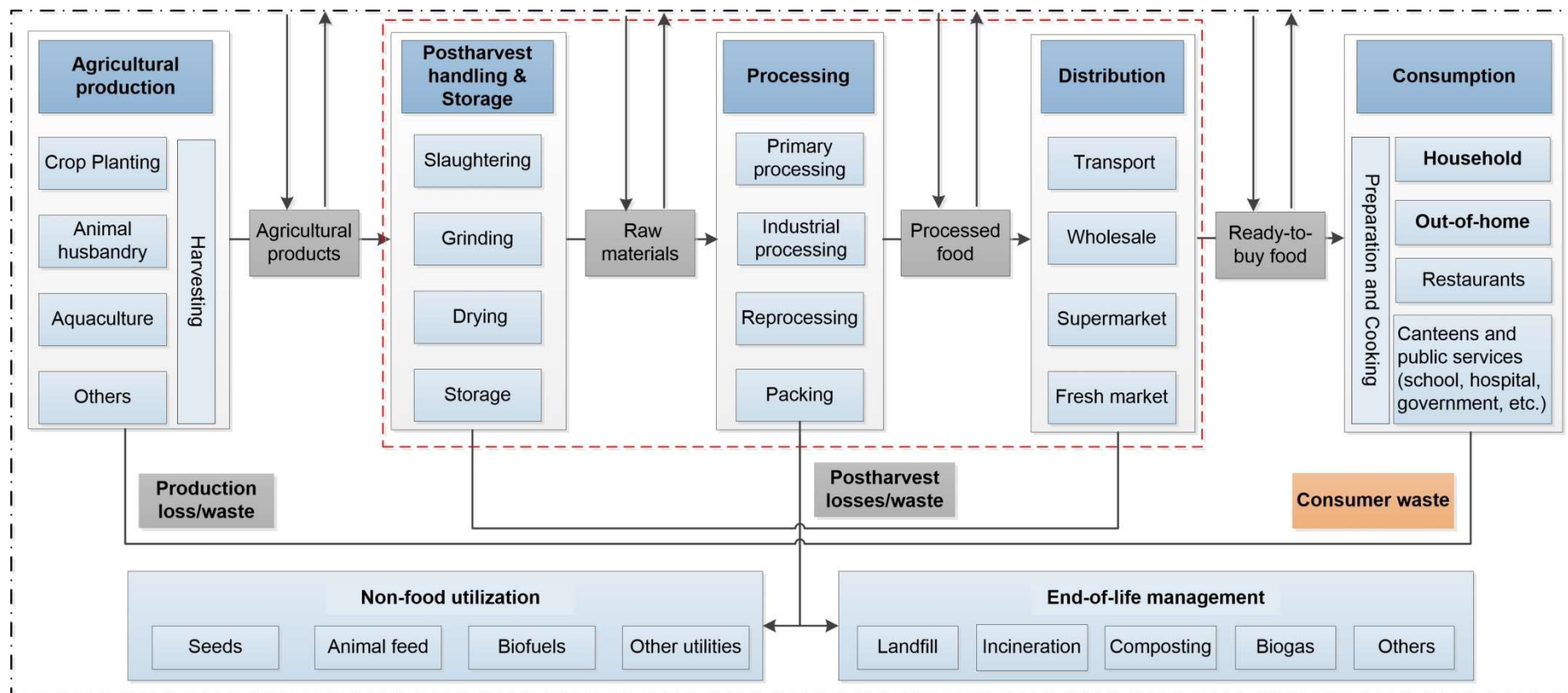
■ **FAO:** 1/3 of food produced is lost or wasted globally (13 billion tons).

## Targets

- **UN:** To halve per-capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains by 2030 (SDG 12.3)
- **EU:** Committed to meeting the SDG 12.3
- **USA:** Calling for a 50-percent food waste reduction by 2030
- **P.R.China:** In 2020, promote the construction of smart grain depots and reduce food losses and waste (through policy, technology, and public advocacy)



# Food losses and food waste (FLW) in food system



# Food waste in restaurants: a first estimate



- 3557 tables in 195 restaurants in four case cities investigated
- Case cities: Beijing, Shanghai, Chengdu, Lhasa



(a) Interviewing the chef



(b) Separating the food leftover



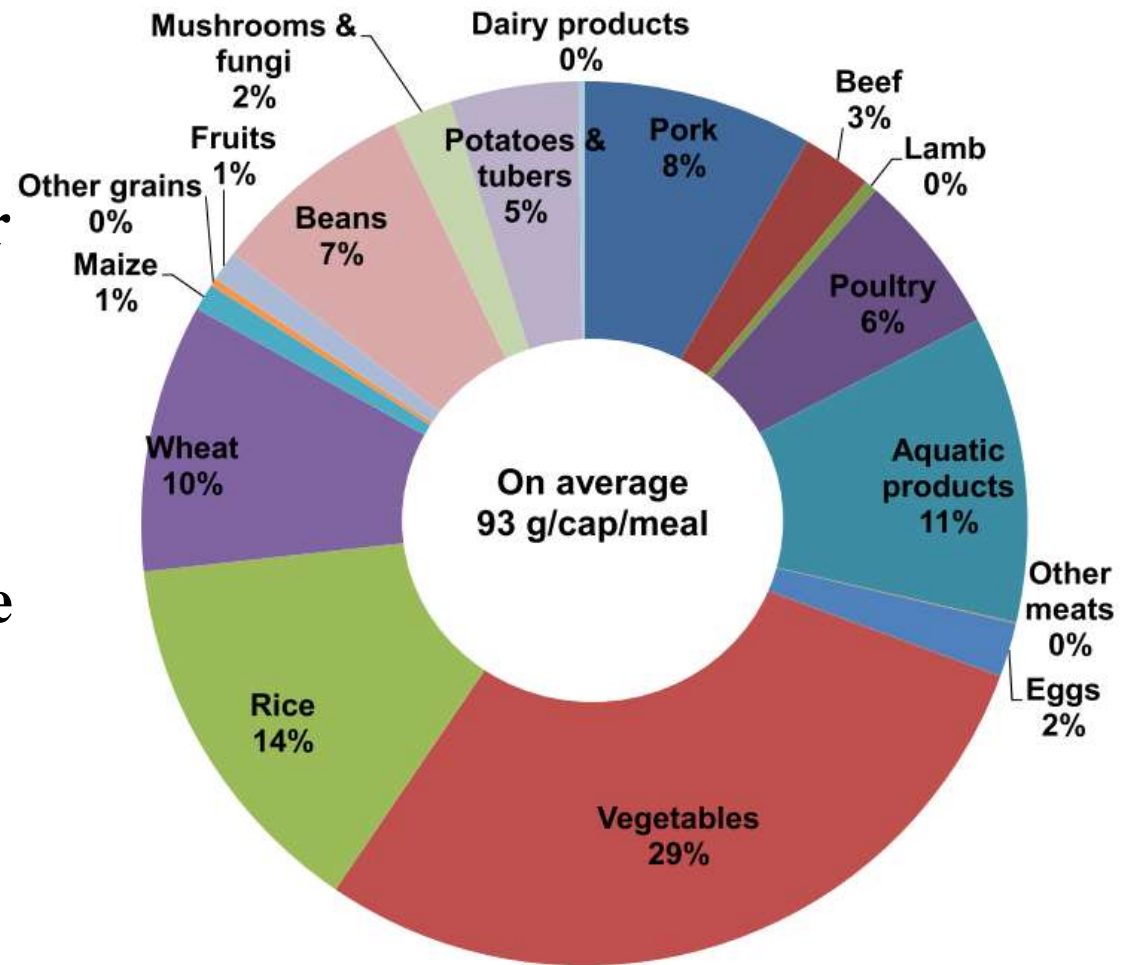
(c) Interviewing the consumer



(d) Questionnaire filling and on-site weighing

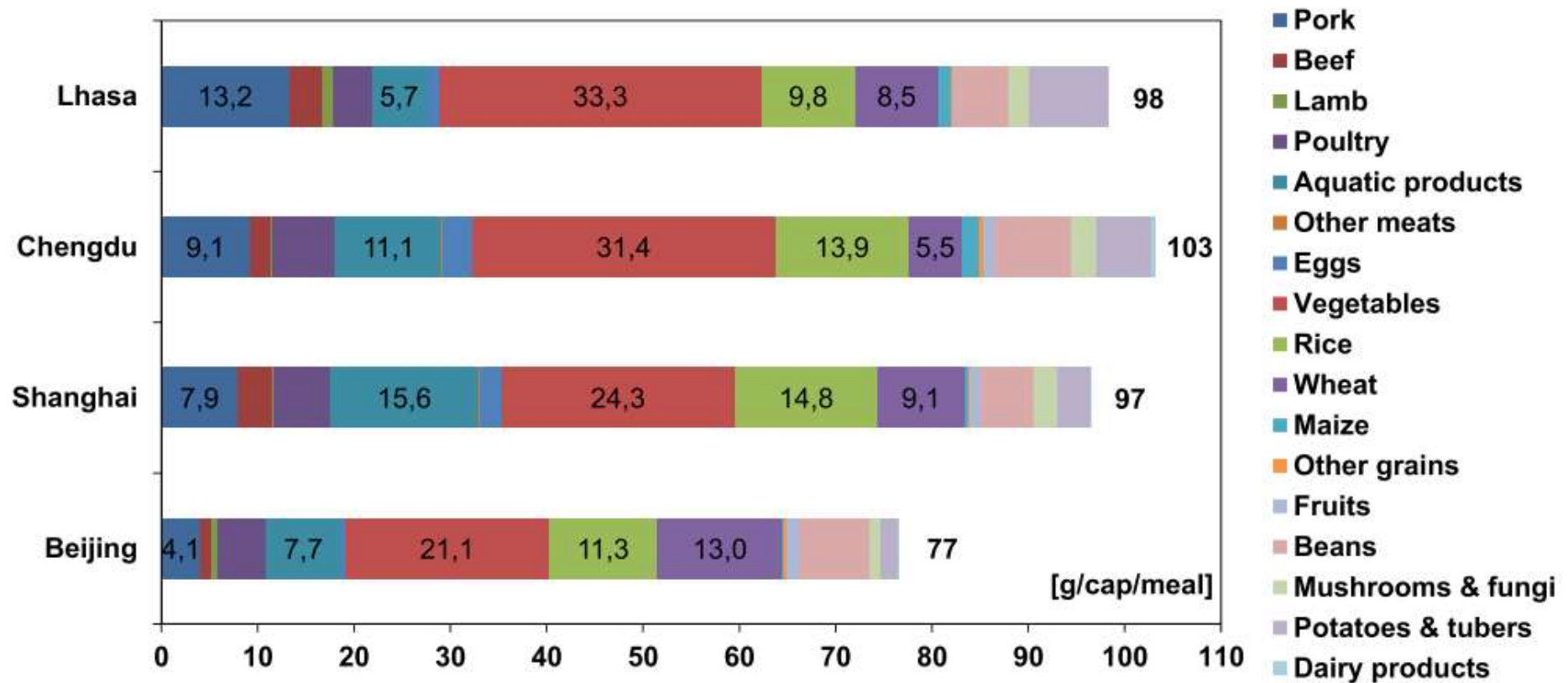
# Findings I: Restaurant food waste and composition of the four case Chinese cities

- The average amount of food waste per capita per meal in the four cities is calculated as 93 g.
- Vegetables contribute the most (29%), followed by rice (14%).





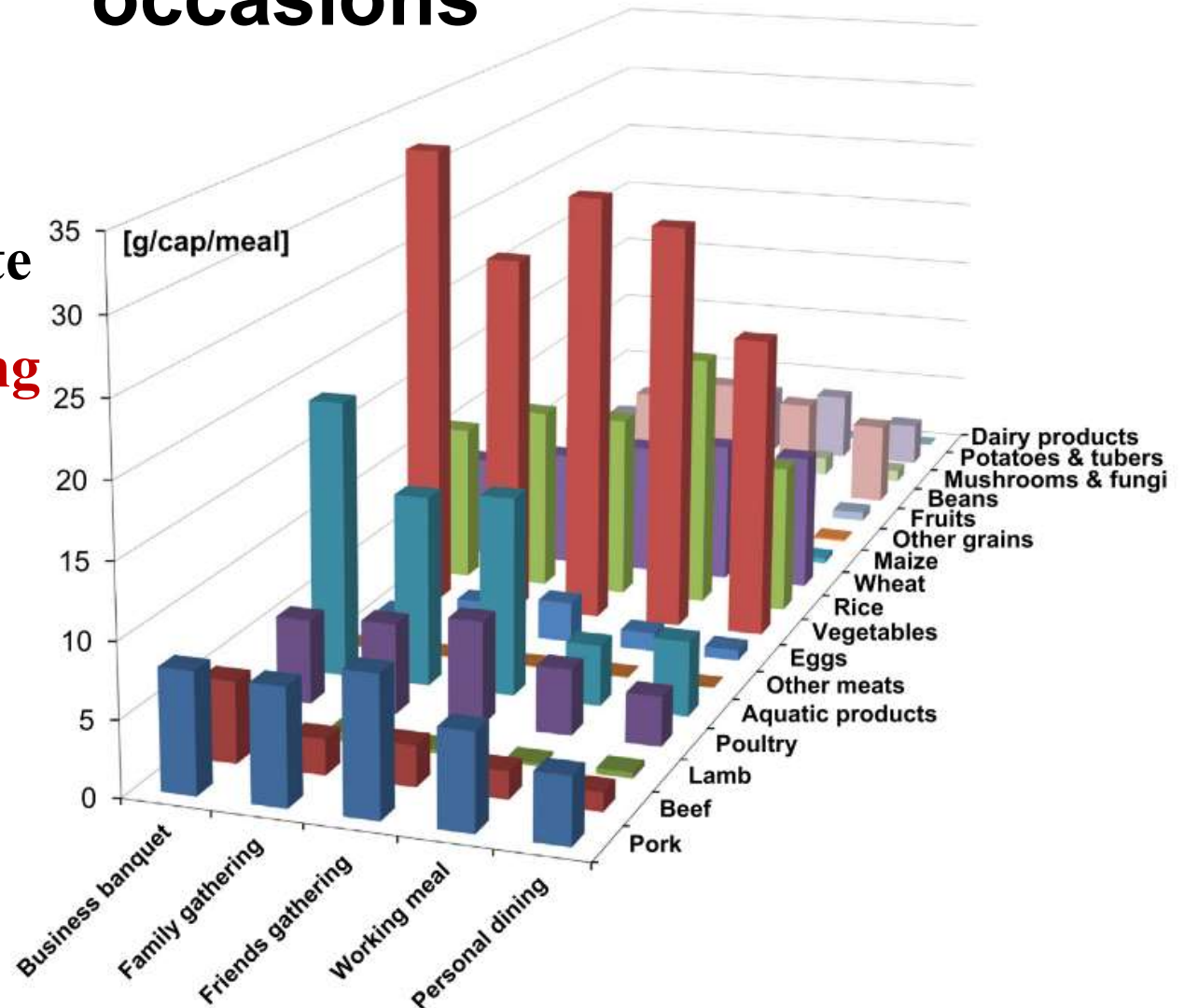
# Findings II: Food waste per capita per meal and proportions of each case city



- Varies by cities, consumer groups, restaurant categories, and purposes of meals...
- Total restaurant waste of the 4 cities: 1.3 Mt.

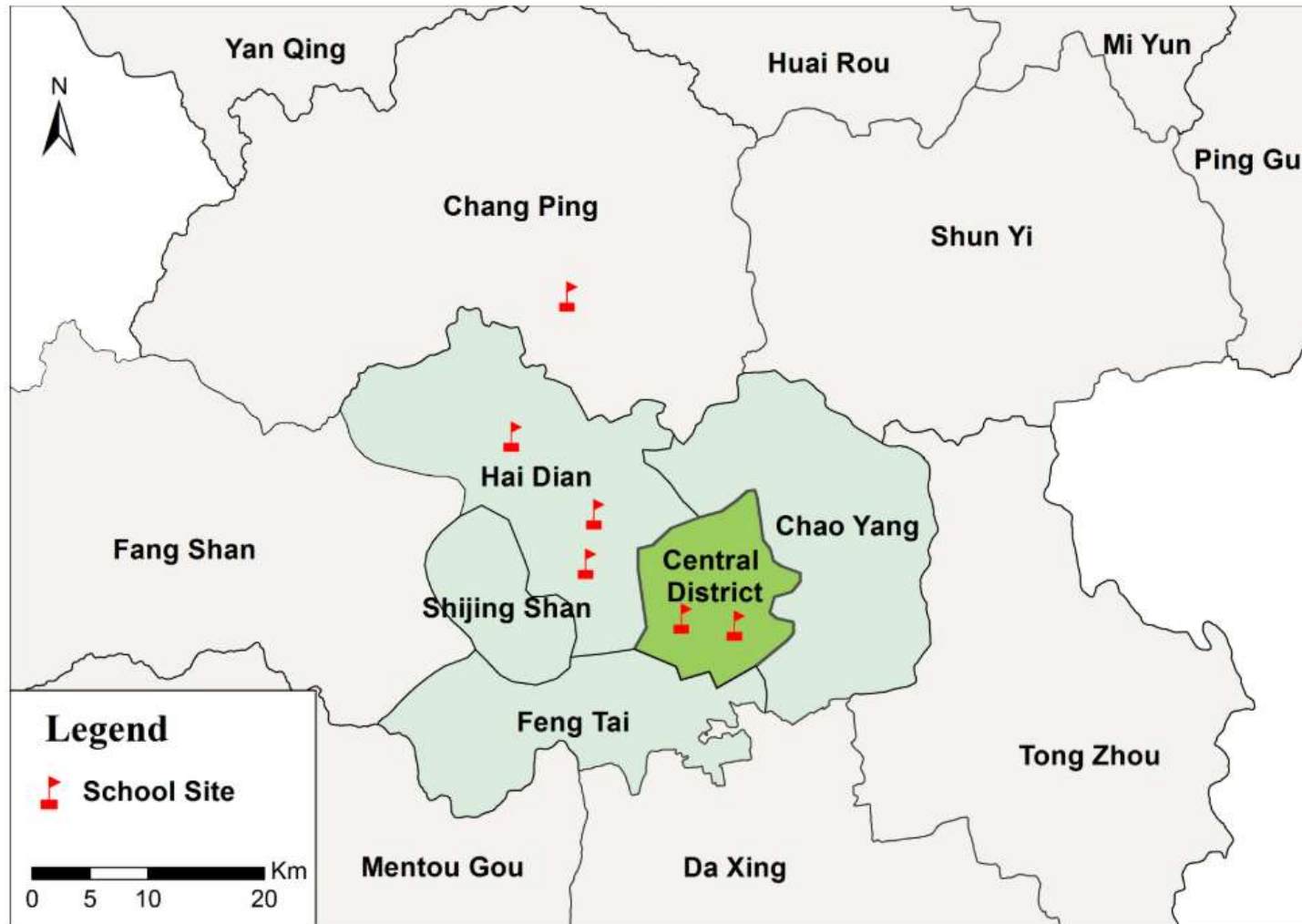
# Findings III: Comparison of restaurant food waste per capita per meal with different occasions

■ Restaurant food waste from **friends gathering** (107 g) and **business banquet** (102 g) were significant.



# Specific Survey: Plate Waste in School Lunch Programs in Beijing

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Location of the **six** surveyed schools in Beijing



# Composition and patterns of school food waste

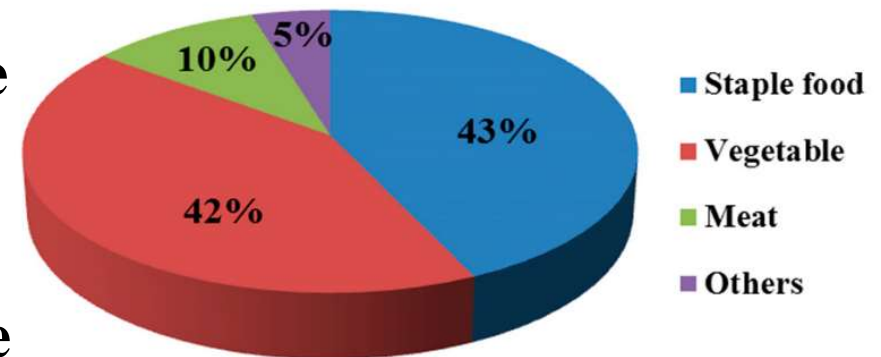
## Food waste disparity under different food supply patterns

Supply Pattern	Food Waste (g/Cap/Meal)	Share of Food Served (%)	Food Waste Composition (g/Cap/Meal)			
			Staple Food	Vegetables	Meats	Others
Packed Meal	216	35	84	105	24	3
Buffet Meal	63	10	45	12	3	3
Set Meal	109	18	39	49	10	11
Average	130	21	56	55	12	6

■ **Packed meals** are the most wasteful.

■ The average amount of school plate waste was **130 g/cap/meal**.

■ **Staple food and vegetables** were the main proportions of food waste.



Composition of school food waste

# Actions from Stakeholders

## Stakeholder-based sustainable consumption strategy for food consumption

### Government

- Encourage residents to actively consume and improve the level of food consumption
- Introduce relevant policies and special funds to develop tourism catering
- Strengthen legislation and implementation of catering consumption
- Formulate legal provisions to eliminate food waste

### Catering Companies

- Strict implementation of food safety laws and catering enterprise hygiene regulations, etc.
- Strictly control food purchase channels
- Comply with food processing operations and remove health hazards
- Strengthening health supervision and health training for catering employees
- A la carte service and reminder consumption, pay

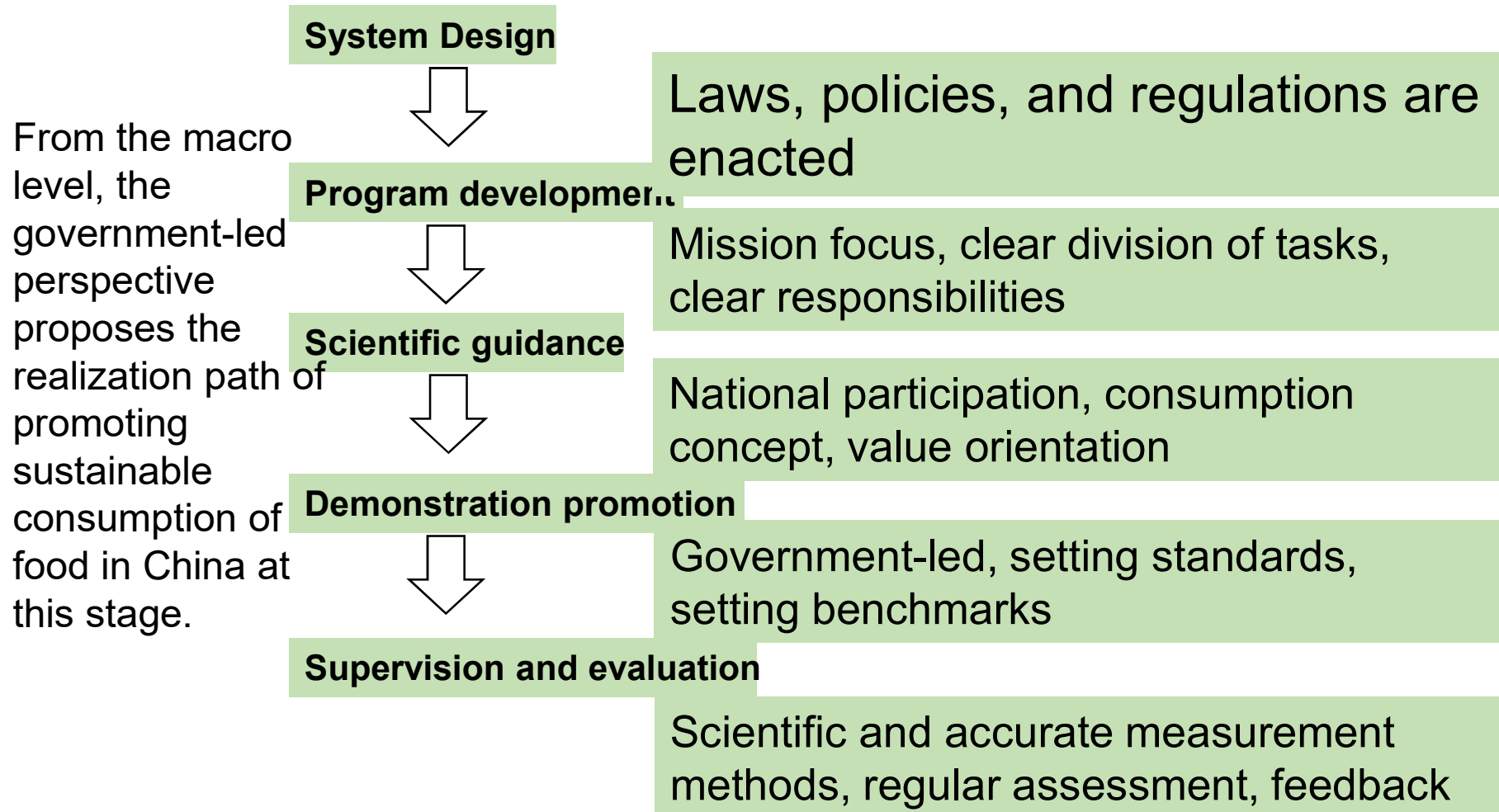
### Industry organisations

- Formulate industry norms and promote the standardization of the catering industry
- Timely reflection of key issues and opinions in the catering industry
- Play an intermediary organization and promote communication between stakeholders
- Promote public opinion supervision and publicity

### consumers

- Choose regulated dining places for food and beverage consumption
- Reporting and supervising food and beverage consumption issues
- Advocate recycling tableware and reduce the use of disposable tableware
- Establish a correct concept of food and beverage consumption, no extravagance and waste
- Actively participate in public welfare education

# Government-led, Multi-Stakeholder participation model



- The Beijing Municipal Education Commission issued the "Notice on Further Improving Campus Catering Supply and Eliminating Food Waste in School" ;
- The Beijing Municipal Commission of Education and Industry has held different types of seminars and theme education practice activities, which attracted widespread attention.

## 中华人民共和国教育部

5.30

教基一函[2016]45号

### 教育部关于切实做好中小学节粮教育和管理工作的通知

各省、自治区、直辖市教育厅（教委），新疆生产建设兵团教育局：

中小学是青少年世界观、人生观、价值观形成和良好品德习惯养成的关键阶段。做好节粮教育，让孩子们从小懂得一粥一饭来之不易的道理，上好俭以养德的人生必修课，传承中华民族勤俭节约的传统美德，是推动社会文明进步的必然要求，是促进学生健康成长的必由之路，对未成年人思想道德建设具有重要意义。近年来，中央领导高度重视节粮教育工作，教育部多次作出部署，各地采取有效措施贯彻落实，取得了积极成效。但近期发现少数中小学仍存在食物浪费现象，引起社会关注。为切实做好节粮教育和管理工作的通知，现就有关事项通知如下。

一、迅速行动，专门开展一次督导检查。各地要就贯彻落实《教育部关于勤俭节约办教育建设节约型校园的通知》（教发〔2013〕4号）和《教育部关于在中小学幼儿园广泛深入开展节约教育的意见》（教基一〔2013〕5号）中开展节粮教育的要求，制订专门方案，开展一次专项督导检查。各校先进行自查，重点检查有无校园食物浪



### 国务院食品安全办等6部门关于进一步加强学校校园及周边食品安全工作的意见

食安办[2016]12号

各省、自治区、直辖市食品安全办、综治办、教育厅（委）、公安厅（局）、住房和城乡建设厅（城管局、市政委）、食品药品监督管理局，新疆生产建设兵团食品安全办、综治办、教育局、公安局、建设局、食品药品监督管理局：

青少年饮食安全，直接关系到祖国下一代的健康成长，关系亿万家庭的幸福、社会的稳定。党中央、国务院高度重视学校（含托幼机构）校园食品安全工作，各有关部门积极开展学校校园及周边食品安全专项整治工作，推动了学校校园及周边食品安全水平的不断提升，但影响食品安全的因素依然存在。近期，学校校园及周边食品安全事件频发，社会广泛关注。为加大工作力度，形成监管合力，进一步提高学校校园及周边食品安全

# CCTV broadcasts continuously, and the research team provided data support.

## Focal point interview:

- 2017.2.6 : Waste on the tip of the tongue
- 2017.4.3 : Keep your tongue tipless and no waste
- 2017.6.3 : No waste: have heart and action
- 2017.6.19 : What is left of the "leftover feast"?
- 2017.8.14 : How to eliminate waste?

## CCTV News:

- 2017.5.27 : "Waste on the tip of the tongue" can not be ignored
- 2017.5.28 : "Clean you plate" Rejects waste on the tip of the tongue
- 2017.5.29 : "Clean you plate" Reduce waste, campus in action
- 2017.5.30 : "Clean you plate" Refuse the "leftover" feast
- 2017.6.1 : "Clean you plate" Don't let "feast" become "leftover feast"
- 2017.6.3 : Multiple measures to help "Clean you plate"
- 2017.6.4: "Clean you plate" Start small





# 2017-19 Reduce Food Loss & Waste Actions From Chain Store Business



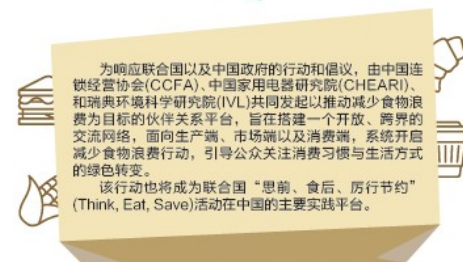
公众宣传素材包  
Consumer educational materials



世界粮食日主题宣传系列活动10月16日  
World Food Day



## 减少食物浪费 行动在中国



2018减少食物浪费行动在中国平台成立  
Launch of SAVE12.3 Platform



2018减少食物浪费论坛 Forum on FLW



## FAO中国首代马文森博士、 瑞典驻华大使出席论坛并致辞

Dr. Vincent Martin, China Rep, UN FAO;  
Former Swedish Ambassador has  
participated and delivered speeches

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绿色可持续消费宣传周



# Scientific support for the “Reduce food waste for young people” campaign

- 2017.05: Host the "Reduce Food Waste" Challenge
- 2017.01: Co-hosting Chinese youth “Reduce food waste” environmental creativity contest;
- 2017.04: Participated in “Food education and youth environmental protection creative competition of Chinese primary and secondary school”.



“可持续发展与我们的食物” 减少食物浪费  
中国青少年环保创意赛暨挑战赛  
**REDUCE FOOD WASTE**



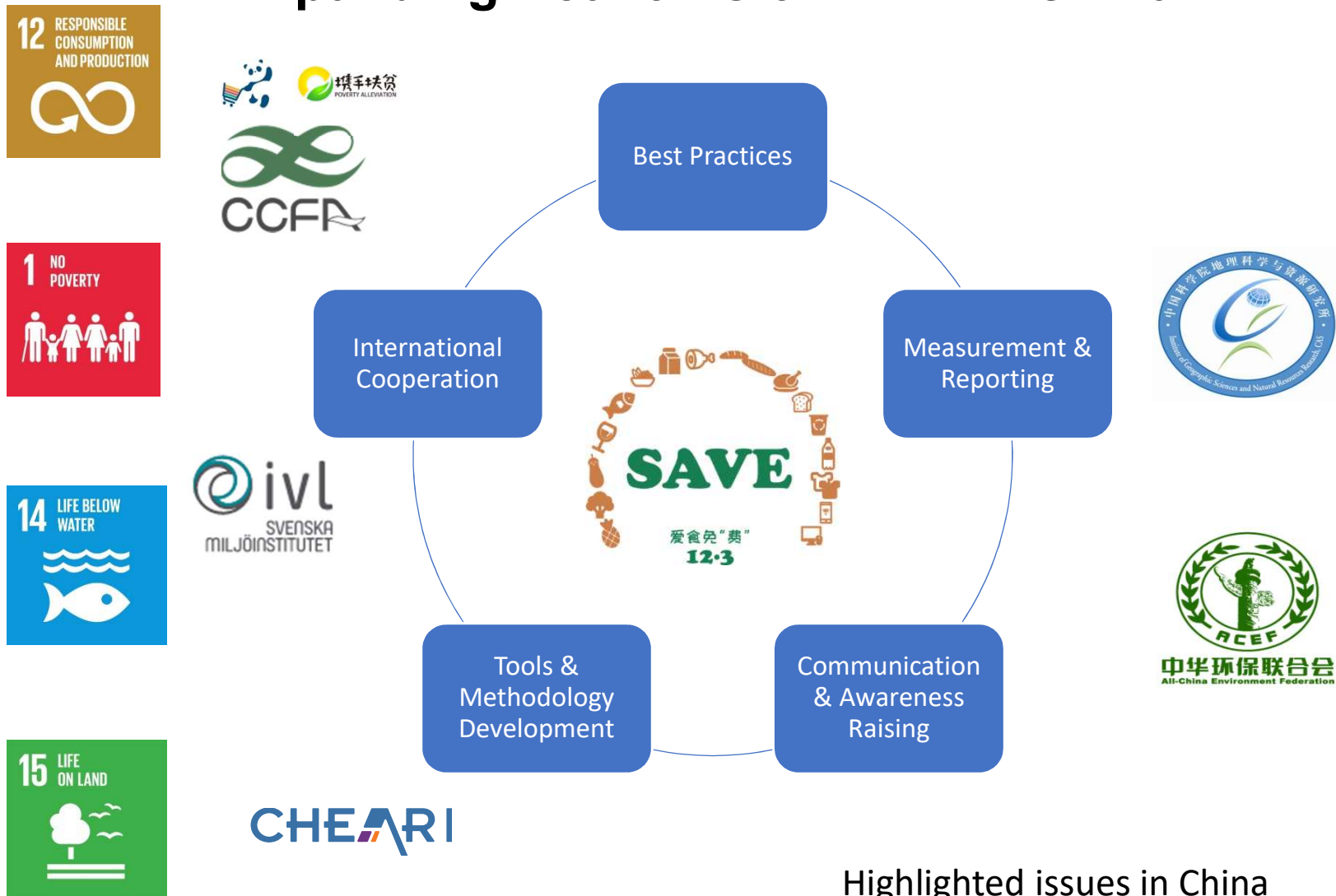
请参赛者在  
2017年5月20日  
(24:00前)  
填写报名表并  
通过在线系统  
上传作品  
FOODWASTE.FACTUBE.COM  
(仅支持电脑提交)  
免费参赛

**Eligibility 参赛资格**  
小学生、中学生、大学生、  
专科学校以及国际学校学生皆可参加

**Prize 奖品**  
01 瑞典环保奖  
02 联合国环境署以及欧盟REFRESH项目颁发的证书  
03 优秀作品在国际环境大会上展示的机会  
04 食物浪费解决方案在上海地区果汁咖啡店实施的机会

主办方: 联合国环境署、中国科学院地理科学与资源研究所、中国科学院南京地质古生物研究所、中国科学院南京地质古生物研究所、中国科学院南京地质古生物研究所  
承办方: 中国科学院南京地质古生物研究所、中国科学院南京地质古生物研究所、中国科学院南京地质古生物研究所  
特别支持方: 中国科学院南京地质古生物研究所、中国科学院南京地质古生物研究所、中国科学院南京地质古生物研究所  
支持方: 中国科学院南京地质古生物研究所、中国科学院南京地质古生物研究所、中国科学院南京地质古生物研究所  
技术支持: 中国科学院南京地质古生物研究所、中国科学院南京地质古生物研究所、中国科学院南京地质古生物研究所  
中国环境网、中国环境网、中国环境网

# Expanding Networks on FLW in China



Highlighted issues in China

- **Poverty Alleviation**
- **Sustainable Agriculture**

# Thanks for your attention!!

**Contact:**

IGSNRR:

Dr. Gang Liu: [liugang@igsnrr.ac.cn](mailto:liugang@igsnrr.ac.cn)

Dr. Xiaojie Liu: [liuxj@igsnrr.ac.cn](mailto:liuxj@igsnrr.ac.cn)

CCFA:

Ms. Chong Li: [lc@ccfa.org.cn](mailto:lc@ccfa.org.cn)