

Food and Agriculture Industry's Long-term, Global Responsibilities

食品及农业的长期、全球目标

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*Challenges*挑战

- ✧ To provide safe and nutritious food, defend the food supply from intentional contamination or disruption, protect individuals from hunger and food insecurity, and encourage a safe and efficient agricultural economy. 提供安全营养的食品，保护食品供应免受蓄意污染和中断的威胁，帮助人们远离饥饿和危险食品，鼓励安全有效的农业经济
- ✧ To manage major long-term structural changes effectively with an international food, nutrition, and agriculture management profession. 通过国际食品、营养和农业管理行业有效地进行主要的长期的结构转换

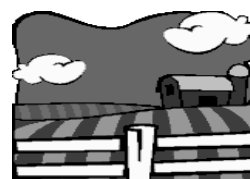
Basic Framework 基本构架



Energy
能源



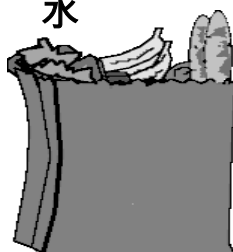
Water
水



Soil
土壤



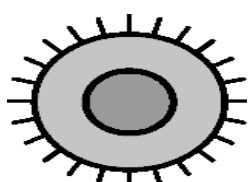
Animals
动物



Food and
Agriculture
System
食品农业
体系



Plants
植物



Virus
病毒



Bacterium
细菌



Humans
人类

Seven Sets of Changes 七项变化

1. Increased demand. 需求的增加
2. Changing consumption preferences. 变化着的消费偏好
3. Sustainable production processes. 可持续的生产过程
4. Technological changes. 技术变化
5. Supply chains, corridors and gateways. 供应链、走廊、门
6. Industry restructuring. 工业重组
7. Food safety system implementation. 食品安全系统的实施

1. Increased Demand 增加的需求

- ✧ 50 % increase in world population. 世界人口50%的增长
- ✧ Most increase in developing regions. 发展中地区大多数的增长
- ✧ Continuing urbanization. 持续的城市化

2. Consumption Preferences 消费偏好

The nutrition transition: with greater prosperity consumers eat more meat and processed food resulting in: 营养转换:
在繁荣之下, 消费者吃更多的肉和加工食品

- ✧ Reduction in the diseases of the poor - malnutrition. 减少了由营养不良引起的疾病
- ✧ Increased diseases of the affluent - obesity. 增加了富裕病 - 肥胖症
- ✧ Need changes in the public health system. 公共卫生体系需要转变

3. Sustainable Production Processes 可持续的生产过程

To meet the increased and changing demand:

为满足增加和变化着的要求

- ☐ Create new crop lands -- Brazil. 开创新的庄稼地——巴西
- ☐ Increase productivity while decreasing damage to ecosystems. 降低对生态环境的危害的同时增强生产力
- ☐ Water systems management. 水源系统的管理
- ☐ Energy systems management. 能源系统的管理
- ☐ Adapting to climate change. 适应气候的变化

4. Technological changes 技术转变

- ☐ Agriculture biotechnology 农业生物技术
 - ☐ Genetically modified crops to increase productivity -- reduce resistance to hazards. 基因改造食品增强生产力——降低对危险的抵抗力
 - ☐ Genetically modified crops to increase nutrient composition. 基因改造食品增强营养组合
 - ☐ Genetically modified animals as an extension of breeding programs. 作为育种方案的延伸的基因改造动物
 - ☐ Pharma -- designing crops and animals to produce materials for medical uses. 药物——改造农作物和动物，以生产医药用途的物质

4. Technological changes continued 技术转变，续

- ☐ Energy technologies. 能源技术
 - ☐ Biofuels. 生物染料
 - ☐ Energy inputs to agriculture -- the world needs a new generation of tractors. 能源输入到农业 - - 世界需要新一代拖拉机

5. Supply chains, corridors and gateways 供应链、走廊、门

- ☐ Supply chain management systems. 供应链管理系统
 - ☐ Global logistics management. 全球后勤管理
 - ☐ Tagging and tracing. 标记和追踪
- ☐ Creating global mobility corridors and gateways. 创建全球流动的门廊
 - ☐ Next generation of “super highways, sea lanes and airways.” 下一代“超级高速公路、海底轨道和空中通道”
 - ☐ Next generation of gateway cities. 下一代门户城市

6. *Industry restructuring* 工业重组

- ✧ Increased bifurcation of industry: a few large global enterprises (each with less than 3 % of the market) and many small firms serving niche and local markets. 增加的工业分支：一些大型的全球企业（每家占不到3%的市场份额）和很多视机而动的小企业及当地市场
- ✧ Mostly processed food sales by supermarkets who enforce standards on the producers to assure food safety and maintain consumer confidence in brands. 超市销售大部分的加工食品并对生产者实施标准以保证食品的安全和保持消费者对品牌的信心

7. *International Food Safety System Implementation*

国际食品安全系统的实施

We have an international food safety agreement under WTO: 我们有WTO的国际食品安全协议

- ✧ Human health, animal health and plant health. 人类健康、动物健康和植物健康
- ✧ Science-based risk management. 以科学为本的风险管理
- ✧ Standards processes -- specific and ISO. 标准程序——特殊的和ISO这个系列标准
- ✧ Information sharing systems. 信息分享系统
- ✧ Development of the international profession now. 现今国际行业的发展

Managing Change 管理转变

Four sets of new international professions and their soft technologies: 四套新的国际性职业及其软技术

1. Systems designer and developers. 系统设计师和开发者
2. Knowledge and communications managers. 知识和通信管理者
3. Risk and emergency managers. 风险和紧急管理者
4. Change managers. 变革管理者

1. Systems Designers and Developers 系统设计师与开发者

- ✧ Design food products and services. 设计食物产品和服务
- ✧ Design sustainable food production systems. 设计可持续的食物生产系统
- ✧ Design global supply chains, corridors and gateways. 设计全球供应链及门廊
- ✧ Design organizations. 设计组织结构

2. Knowledge and Communications Managers

知识和通信管理

- ✧ The international food and agriculture safety and trade regime and the underlying rules, standards and practices. 国际食品农业安全及商业范畴、潜在规则、标准及惯例
- ✧ Good practices and processes. 优秀的操作及程序
- ✧ Scientific knowledge 科学知识
- ✧ The international research agenda and activities. 国际研究议程及活动

3. Risk and Emergency Managers

风险和应急管理

- ✧ Hazard identification and surveillance. 危险的鉴定及监管
- ✧ Risk assessment. 风险评估
- ✧ Risk mitigation. 风险缓解
- ✧ Incident and event management systems. 事变和意外的处理体系
- ✧ Planning, partnering and provisioning. 计划、合作与供应
- ✧ Continuous practice, learning and improving. 持续的实践、学习和提高
- ✧ Recovery -- immediate and long-term. 恢复——紧急的和长期的

4. *Change Managers* 变化管理

The new middle managers with special soft technologies. 具备独特软技术的新的中层经理

- ✧ Scouting and pioneering. 巡查和开发
- ✧ Designing. 设计
- ✧ Boundary spanning. 边界跨越
- ✧ Direction-setting decision-making and continuing evaluation of progress. 确定方向、作出决定和继续评估过程
- ✧ Knowledge diffusing and communicating. 知识扩散和交流
- ✧ Risk and emergency managing. 风险和紧急处理

Future of the Food and Agriculture Industry 食品农业的未来

- ✧ Direction-setting decisions made today to address the challenges and manage the changes over the next decade will shape the industry and the world's food system for much of the 21st Century. 今天做出的为迎接挑战和应对未来十年的转变的设定方向的决定将会在21世纪的大部分时间塑造这个行业和世界食品系统
- ✧ We need an international food systems management profession now. 我们现今需要一个国际食品系统管理行业



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