

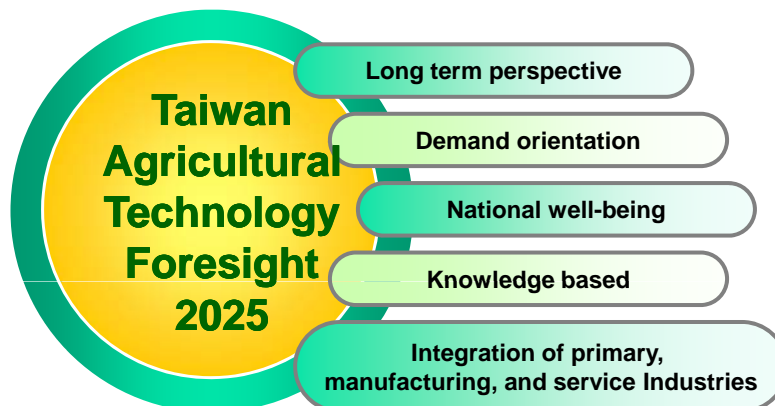
Taiwan Agricultural Technology Foresight 2025



Dr. Julie C. L. SUN
Taiwan Institute of Economic Research
August, 2010



Basic Premises



The Purposes

**Transition from
traditional
agriculture to
technology-
based
agribusiness**

Consensus building

Guiding strategic visions

Mid-long term planning

Communication and networking

Supporting Decision-making system

Participants / Stakeholders

**Taiwan
Agricultural
Technology
Foresight
2025**

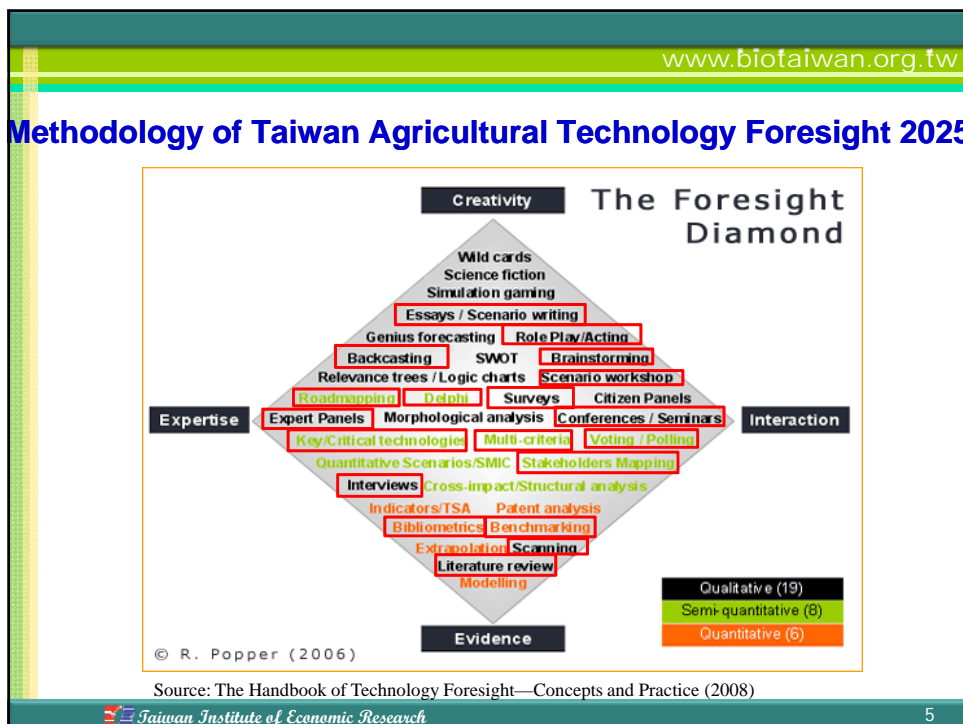
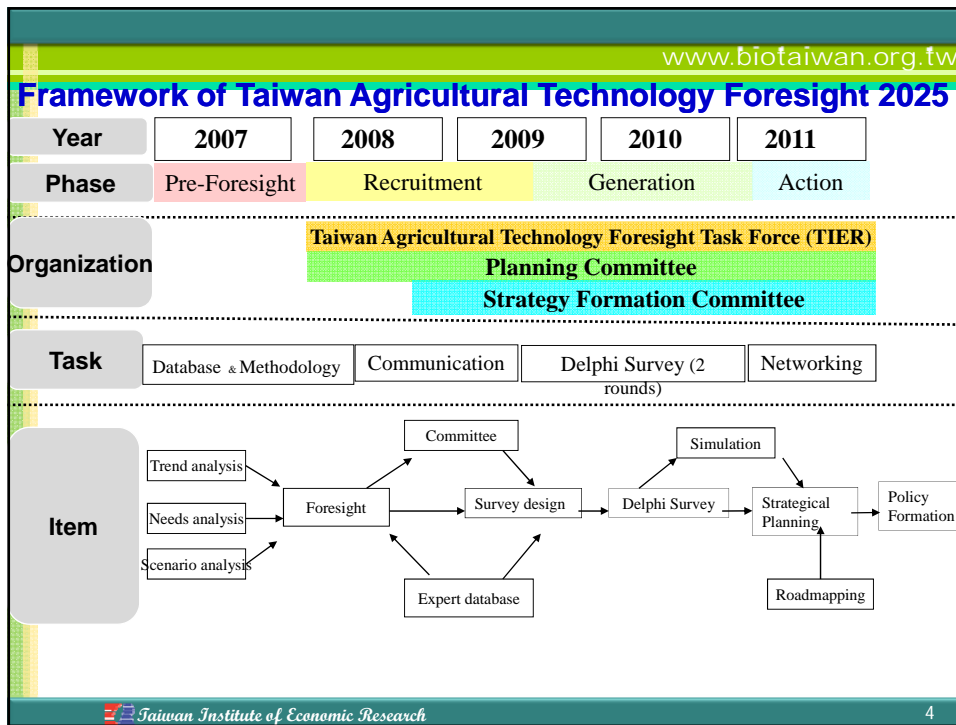
Council of Agriculture

Academia / Research institutes

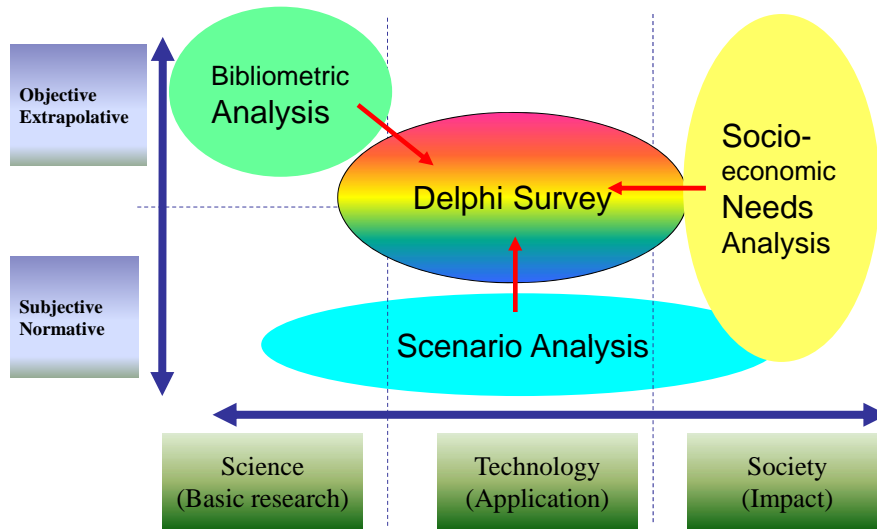
Experts / Managers

Agri-business / Farmers

Young generation



Design of Taiwan Agricultural Technology Foresight 2025



The Content of Delphi Survey

Global Trend / Bibliometric Analysis

Socio-economic Needs Analysis

Scenario Analysis

**Agriculture Related
Strategy Formation
(74 Strategies for
Questionnaire)**

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農業科技前瞻資訊網

Taiwan Agricultural Technology Foresight Information Center

全文檢索 [回首頁](#) [加入我的最愛](#)



計畫簡介 | 最新進度 | 國際前瞻資訊 | 意見交流 | 委員討論區 | 網網相連 | 線上問卷

背景/資料

創意前瞻徵文競賽
「人人嚮往的未來農業」

農業前瞻性課題

ASIA-PACIFIC

Bundesministerium für Bildung und Forschung

FinnSight 2015

NRELO

最新進度

- > 2010/03/15 「人人嚮往的未來農業」創意前瞻徵文競賽開始!
- > 2010/03/11 台大生農學院將於3/26舉辦台灣農業科技前瞻活動說明會
- > 2010/03/03 2025農業科技前瞻與德菲調查巡迴說明會開始接受報名!
- > 2010/02/25 農業科技前瞻德菲調查參與意願調查進行中
- > 2009/12/25 「台灣農業科技前瞻」全國宣導說明會圓滿達成!

國際前瞻資訊

- > 2010/06/02 神經肽研究可望開發無毒害之生物性農藥
- > 2010/05/13 瑞士農業政策發展走向與未來展望
- > 2010/05/03 國際水資源管理中心發表東南亞農業的氣候變遷對策
- > 2010/04/19 日本宣布2009年十大農業生技研究成果(下)
- > 2010/03/29 日本宣布2009年十大農業生技研究成果(中)

活動/剪影



意見/交流

- 想瞭解「前瞻」究竟是.....clider
- 前瞻是一種對於未來的.....台經院前瞻小組

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台灣經濟研究院 8

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Platform of Taiwan Agricultural Technology Foresight 2025

計畫簡介 | 最新進度 | 國際前瞻資訊 | **意見交流** | 委員討論區 | 網網相連 | 線上問卷

交流園地

- 一般訪客 (2)
- **德菲問卷題目討論區 (75)**

德菲問卷題目討論區

發表新主題 全文檢索

標題	回覆	點閱	發表人	最後發表
			2010-04-12 13:21	
開發能減緩或預防代謝症候群的水稻育種技術及品種	1	38	農業科技前瞻研究小組	2010-04-22 09:30
			2010-04-12 13:29	
提升作物穩定產量之精密栽培園藝技術	1	27	農業科技前瞻研究小組	2010-04-22 09:17
			2010-04-19 17:43	2010-04-20 10:32
問卷的有效性	1	34	吳孟珊	台經院前瞻小組

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Survey on line Taiwan Agricultural Technology Foresight 2025

國際前瞻資訊 | 意見交流 | 委員討論區 | 網網相連 | **線上問卷** | 歡迎來到會員專區

會員登入

本討論區提供參與「農業科技前瞻計劃」之規劃委員及命題委員，討論計劃工作相關事項之用。

- 請您在輸入您所收到的帳號、密碼，以及頁面上的驗證碼，再點選「login」即可登入討論區
- 若您遺忘您的帳號、密碼資訊，請來電 (02)2586-5000 # 204轉給我們
- 您必須輸入驗證碼後才可以登入，驗證碼已顯示於該欄位上。

會員登入

帳號:

密碼:

驗證碼:

系統提供每位專家一組帳號密碼(亦可自行修改)

感謝您使用本會員功能，您可在這裏修改您的聯絡資料，若您對我們的服務有任何建議，歡迎隨時「與我們聯絡」，謝謝您。

[線上問卷]
線上Delphi問卷

[委員討論區]
進入委員討論區

[修改個人資料]
修改您的登入密碼或是聯絡方式

[登出會員]
請於離開本站前，記得登出會員，以避免會員帳號被盜用

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國際前瞻資訊 | 意見交流 | 委員討論區 | 網網相連 | **線上問卷**

問卷

請問下列那些是您較熟悉的領域:(可複選):

(此選擇僅會影響問卷順序，並不會影響問卷內容)

✕

農業技術
 農政領域
 漁業領域
 畜牧領域
 環境資源領域
 森林保育領域
 食品領域
 防檢疫領域

E化領域
 生物技術領域

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台灣經濟研究院 11

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12. 發展適合台灣海域之大型食用藻類繁殖技術

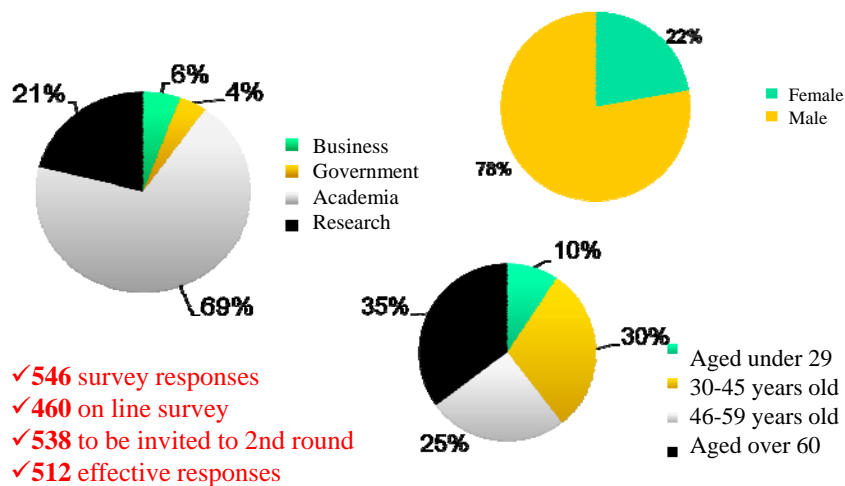
問項	1	2	3	4	5	請發表您對此題的建議與看法
(1) 對提升民眾生活品質的影響力	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
(2) 對提升環境品質的影響力	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
(3) 對提升產業發展的影響力	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
(4) 政府參與的必要程度	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
(5) 本議題對於國家的重要度	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

13. 建構農村與城市共生交流的優質生活圈體系

問項	1	2	3	4	5	請發表您對此題的建議與看法
(1) 對提升民眾生活品質的影響力	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
(2) 對提升環境品質的影響力	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
(3) 對提升產業發展的影響力	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
(4) 政府參與的必要程度	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
(5) 本議題對於國家的重要度	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

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Survey Responses



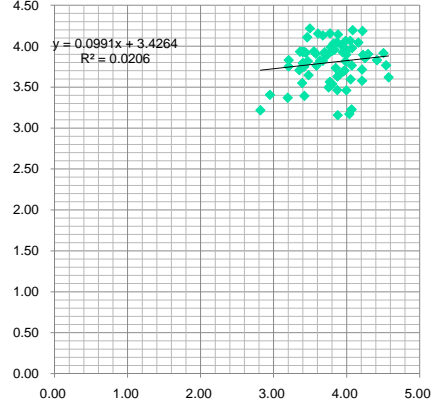
Source: TIER(2010), The first round Delphi survey of Taiwan Agricultural Technology Foresight 2025

Delphi Survey on Industrial Development

Top 10

Establishment of mass quality fry production technologies for grouper, shrimp, and other important fishes
Establishment of rapid diagnosis systems for infectious diseases of livestock, poultry and aquatic animals
Improvement of integrated safety test, certification, traceability system for agri-food products
Improvement of high-quality seed and seedling production technology for the tropics and sub-tropics
Development of efficient, labor-saving and safe facilities and technologies for agricultural production and processing operations
Establishment of animal vaccine production systems that conform to international cGMP guidelines
Development of agricultural and livestock production systems with IT and automation technologies
Construction of whole-plant orchid export system
Development of accurate, rapid and simple diagnostic kits for pesticide residues
Incentive development to foster a new generation of farmers and entrepreneurial management

Rating



Government Support to be needed

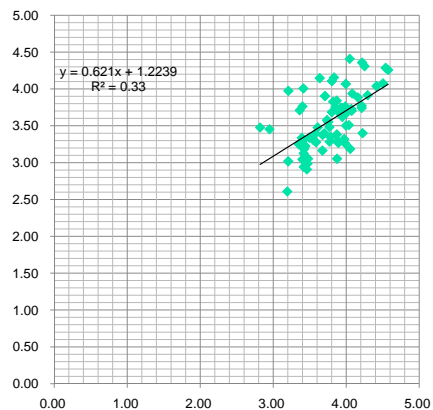
Source: TIER(2010), The first round Delphi survey of Taiwan Agricultural Technology Foresight 2025

Delphi Survey on Life Quality

Top 10

Development of accurate, rapid and simple diagnostic kits for pesticide residues
Improvement of integrated safety test, certification, traceability system for agri-food products
Elucidation on the transmission mode and pathogenic mechanism of animal and human infectious diseases
Research on ecological restoration of polluted farmland, derelict rearing pond, overdrawn groundwater area, river bed and bank, and degraded forestland
Improvement of forecasting and monitoring techniques for slopeland debris slides
Development of food-safety monitoring system and inspection techniques
Promotion of recreational agriculture and rural development that integrate health, culture, leisure and nature conservation
Construction of rural and urban linkages for quality living system
Elucidation of global climate change affecting Taiwan's agricultural ecosystem and development of countermeasures
Establishment of database and diagnostic techniques for toxic substances in agricultural materials and products

Rating



Government Support to be needed

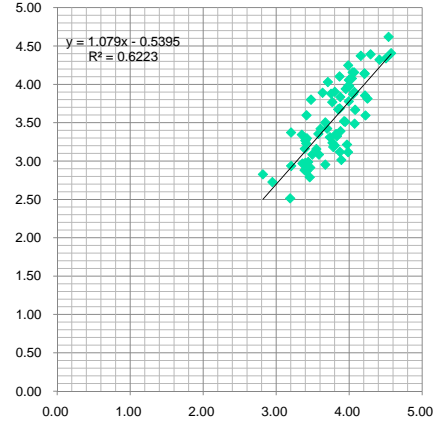
Source: TIER(2010), The first round Delphi survey of Taiwan Agricultural Technology Foresight 2025

Delphi Survey on Environment Protection

Top 10

Research on ecological restoration of polluted farmland, derelict rearing pond, overdrawn groundwater area, river bed and bank, and degraded forestland
Improvement of forecasting and monitoring techniques for slopeland debris slides
Development of groundwater-saving aquaculture
Development of crop production systems with low-energy consumption, low emission of greenhouse gases, and efficient use of water resources
Elucidation of global climate change affecting Taiwan's agricultural ecosystem and development of countermeasures
Development of agricultural environmental-resources monitoring and disaster early-warning technology
Integration of agricultural byproducts and refuses utilization systems and efficient energy conversion technologies
Development of accurate, rapid and simple diagnostic kits for pesticide residues
Research and development on ecoforestry and biodiversification
Development of water system design and basin assessment techniques for irrigation and environment-regulation functions

Rating



Government Support to be needed

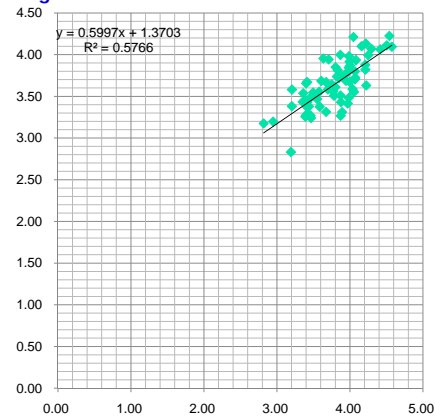
Source: TIER(2010), The first round Delphi survey of Taiwan Agricultural Technology Foresight 2025

Delphi Survey on National Priority

Top 10

Research on ecological restoration of polluted farmland, derelict rearing pond, overdrawn groundwater area, river bed and bank, and degraded forestland
Development of accurate, rapid and simple diagnostic kits for pesticide residues
Improvement of integrated safety test, certification, traceability system for agri-food products
Elucidation of global climate change affecting Taiwan's agricultural ecosystem and development of countermeasures
Development of crop production systems with low-energy consumption, low emission of greenhouse gases, and efficient use of water resources
Improvement of forecasting and monitoring techniques for slopeland debris slides
Development of groundwater-saving aquaculture
Development of agricultural environmental-resources monitoring and disaster early-warning technology
Development of energy-saving and carbon-reducing preservation and shipping technologies of agricultural and processing products
Elucidation on the transmission mode and pathogenic mechanism of animal and human infectious diseases

Rating



Government Support to be needed

Note: Derived from Industrial Development, Life Quality, Environment Protection

Source: TIER(2010), The first round Delphi survey of Taiwan Agricultural Technology Foresight 2025

Delphi Survey on

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Government Support to be needed

Top 10

Improvement of forecasting and monitoring techniques for slopeland debris slides
Research on ecological restoration of polluted farmland, derelict rearing pond, overdrawn groundwater area, river bed and bank, and degraded forestland
Elucidation of global climate change affecting Taiwan's agricultural ecosystem and development of countermeasures
Development of agricultural environmental-resources monitoring and disaster early-warning technology
Development of groundwater-saving aquaculture
Elucidation on the transmission mode and pathogenic mechanism of animal and human infectious diseases
Collection and conservation of genetic resources in the face of climate change
Improvement of integrated safety test, certification, traceability system for agri-food products
Establishment of transformation guidelines and impact assessment for sustainable farm land development
Development of water system design and basin assessment techniques for irrigation and environment-regulation functions

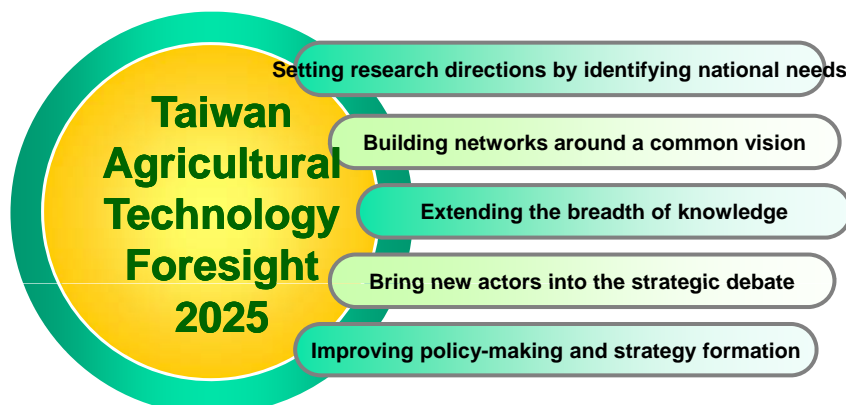
Source: TIER(2010),The first round Delphi survey of Taiwan Agricultural Technology Foresight 2025

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Evaluation / Impact



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