


**WAGENINGEN UR**  
For quality of life

# Demand articulation in horticultural education and extension in Turkey

## Identifying possibilities for collaboration

Ben Kamphuis & Dieuwke Klaver



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## Agenda

- 9.15 Aankomst met koffie en thee
- 9.45 Welkom  
*Carla J.M. Konsten, Landbouwraad Turkije*
- 10.00 Resultaten van de needs assessment in Turkije  
*Ben Kamphuis en Dieuwke Klaver*
- 10.30 Vragen en antwoorden ter verduidelijking
- 11.00 Discussie en overleg over mogelijke projecten
- 12.00 Conclusies:  
*Carla J.M. Konsten, Landbouwraad Turkije*
- 12.30 Lunch

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1. Objectives of the project
2. Get to know Turkey
3. Horticulture in Antalya
4. Extension and advisory system
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7. Strategies for collaboration

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## General Project Objectives

To contribute to the modernisation of the horticultural sector of Turkey in view of its accession to the EU

- by means of support to developing high quality and professional extension and education services

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## Specific project goals

- Assess
  - Extension and education needs of horticultural producers
  - Supply of information and education services by Turkish agricultural extension and education system
- Explore potential for
  - High quality agricultural extension and education.
  - Collaboration between Dutch and Turkish agricultural education and training institutions

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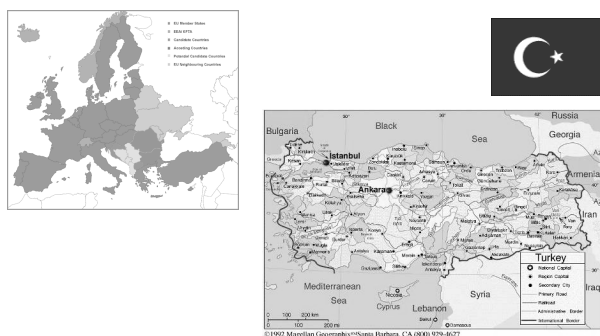
## Research questions (summary)

- Demand side
  - What are the growers' needs for information and education?
  - Where do they get the required information?
- Supply side
  - What is the current situation in education and extension?
  - How do the relevant organizations respond to growers' needs?
- Assessment
  - What priority actions needed to improve the situation?
- Turkey-Netherlands Collaboration
  - In what way can Dutch organizations contribute to improvement of Turkish horticultural education and extension system?
  - What organizations do offer the best chances for realising effective co-operation?

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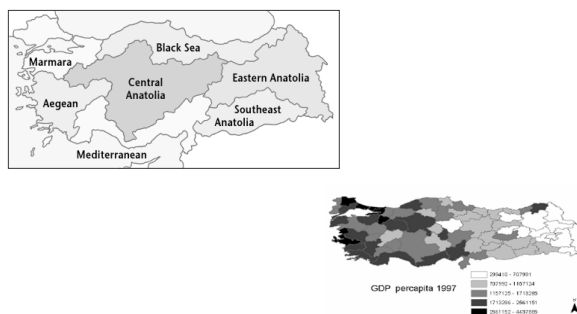
## Turkey, a huge country



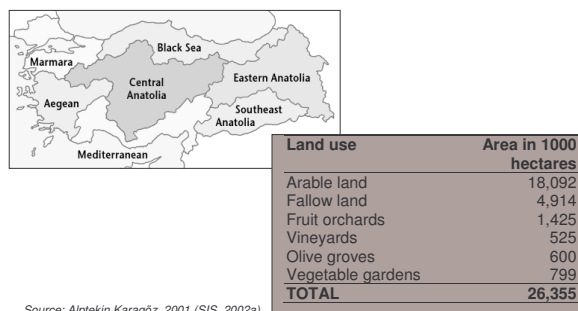
## Some economic key figures

Source: Burrell and Oskam, Eurostat

## Turkey: Large regional differences in income



## Turkey: agricultural landuse



Source: Alptekin Karagöz, 2001, (SIS, 2002a)

## Turkey: production

Product	Turkey Million tonnes	% EU-15	% EU-25
Cereals	30.7	14.3	11.5
Sugar beets	16.5	13.9	11.7
Oilseeds	2.1	14.8	12.2
Potatoes	5.2	11.2	7.8
Apples / Pears	2.5	22.9	n.a.
Stone fruit	1.6	24.9	22.6
Tomatoes	8.4	56.4	54.1
Onions	2.4	61.9	49.3

Source: Burrell and Oskam

## Turkey: Farmsize

Size of holdings	Percentage of holdings	Percentage of cultivated area
< 1.0 ha	17.0	1.3
1 – 2 ha	17.5	3.8
2 – 5 ha	30.9	15.5
5 – 10 ha	18.2	20.4
> 10 ha	16.4	59.0
Total percentage	100.0	100.0
Total holdings/area	3,076	17,164

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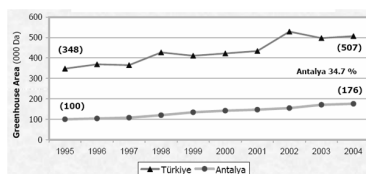


## Antalya: Small-scale farming prevails

- About 50.000 farming households
- Average farm size: 2- 3 ha
- Mixed farms, cereals, orchards, vegetables and livestock
- About 25.000 farms with protected vegetables production
- Total protected area: about 1800 ha
  - 47% plastic green houses
    - 60% < 100 m<sup>2</sup>
  - 35 % glass houses
    - about 100 ha modern glasshouses
  - 18 % plastic tunnels

## Antalya: Important vegetable production area

- Grand majority of production of fruit and vegetables in Turkey is produced for the domestic market
- Antalya has large share in Turkish fresh fruit & vegetables:
  - 8 % of production
  - 12 % of export volume
  - 18 % of export value
  - 75 % in winter season
- Antalya 60 % Turkish modern glasshouses



## Turkey: Marketing of fruit and vegetables

- More than half of the vegetables is sold on street markets
- Supermarkets play a very limited role in the market, yet
- Exporters are leading in quality improvement
- Almost all commercial produce has to be sold via commissioners on wholesale market
- Commission is 14.4 % of market value:
  - 2.0 % municipality tax
  - 4.4 % state tax
  - 8.0 % commission

## Trends in Turkish horticulture

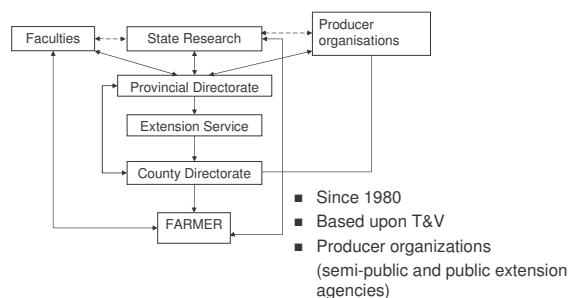
- Competition in horticulture will increase
- Consumers will become more quality oriented
- Enlargement and modernization of farms is required
  - Construction of glass houses
  - Substrate culture
  - Automated production control
  - Use of natural gas (from 2007 on)
- Consequences for farmers
  - Large investments and/or
  - Cooperation or
  - Stop farming
- Market chain need to better integrated
  - Increasing role of supermarkets and export market
  - Commissioners need to reconsider their position and responsibilities in the market

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## Turkey: Extension and advisory system - old



## Turkey: Extension and advisory system - new

- 2006 Advisory law: public-private system with certification and registration system for advisors:
  - Public extension workers
  - Private independent advisors
  - Private dependent advisors working in the supply chain
- Koy-mer project, 2005: in about 1000 villages:
  - one agricultural engineer per village,
  - financed by producer organizations
  - Intention to extend it to 2500 villages
- 2004: Producer unions: according to product group or crop

## Antalya: advisory "services" for horticulture (1)

Organisation	Performance	Trends
Public extension agencies	<ul style="list-style-type: none"> <li>■ Knowledge, Skills, Attitude (KSA) ☺</li> <li>■ Trust: ☺</li> <li>■ No face to face contact</li> <li>■ Ability to learn and innovate: ☺</li> </ul>	<ul style="list-style-type: none"> <li>■ New role: training &amp; certification</li> <li>■ Extension for rural development</li> </ul>
Producer Organizations ■ Chambers ■ Coops ■ Unions	<ul style="list-style-type: none"> <li>■ Mandate:</li> <li>■ KSA horticulture: ☺</li> <li>■ Attitude &amp; trust: ☺</li> <li>■ Outreach : face-face ☺</li> </ul>	<ul style="list-style-type: none"> <li>■ Unions: for small growers for export ☺</li> <li>■ Institutional : ☺</li> </ul>

## Antalya: advisory "services" for horticulture (2)

Organization	Performance	Trends
Independent advisors	<ul style="list-style-type: none"> <li>■ KSA &amp; trust: ☺</li> <li>■ Ability to learn : ☺</li> <li>■ Outreach: medium growers for export : (one visit per week)</li> </ul>	Growing market for independent advisors: ☺
Dependent advisors ■ Seed companies ■ Commissioners ■ Retail shops	<ul style="list-style-type: none"> <li>■ KSA ☺ + ☺</li> <li>■ Outreach 95 % : demos, face-face:</li> <li>■ Ability to learn : ☺</li> </ul>	<ul style="list-style-type: none"> <li>■ Commissioners engage in advisory activities ☺</li> </ul>

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## Turkey: Agricultural education

### Problems

- Agricultural faculties
  - Agric engineers do not have a farm background
  - Not prepared for jobs in the supply chain
- Vocational education
  - Almost neglected
  - No agric education for farmers → illiteracy
  - No appropriate education for support services

### Opportunities

- Universities
  - Growing demand for professional engineers
- Vocational education
  - Transfer to Ministry of Education as of 2006
  - Vocational education is in! (EU-MEGEP project)
  - Some infrastructure for agricultural schools available – not in Antalya
  - Link with life-long education

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## Conclusions (1)

- Growers who need advisory services for horticulture
  - Medium size growers who can pay for independent advisor
  - Small growers in producer union: independent advisor
  - Small growers who do not pay for independent advice → dependent advisors
- Ideal advisor – extension workers
  - Both generalists and specialists are needed
  - Agricultural engineer, farming background, hands-on experience.
  - Knowledge on input use, production technologies, food quality and safety regulations, marketing opportunities, management of producer organizations, depending on function/job description
  - Communication skills: listening, advising and group facilitating

## Conclusions (2)

- Trends
  - Good opportunities for Turkish horticulture on EU and domestic market
  - Growers need to specialize, modernize and enlarge production units
  - Need for professional independent advisors for individual growers and producer unions
  - Investment in dependent advisors by actors in the supply chain (seed companies, commissioners, supermarkets)

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## Strategies for collaboration (1)

- **Farmers**
  - Training centre & Information centre
- **Advisors**
  - (In)dependent advisors, public extension workers, agricultural engineers in producer organisations, young graduates
  - Training centre & Information centre
- **Students at vocational high schools and faculties**
  - Education in line with labour market requirements
  - Research programmes

## 1. Training centre for farmers

- **Aim:**
  - Train farmers in all aspects of production and marketing
- **Target group:**
  - Small-medium farmers with commercial orientation in horticulture
  - Small farmers organized in producer organizations
- **Trainers:**
  - advisors and others according to subject matter
- **Means**
  - Short courses, evening schools,
  - study clubs, etc
- **Institutional set-up**
  - needs to be clarified
  - All actors see the interest → multi-actor approach
- **Dutch role:**
  - Business plan of centre
  - competency profiles and curriculum development,
  - Training of trainers,
  - Visits to the Netherlands (study clubs)

## 2. Information centre/front office for farmers

- **Aim:**
  - Support advisors and farmers to update their knowledge
- **Actions:**
  - Collect relevant information from all actors in the supply chain and from research-extension-education centers
  - Set-up a website: resource portal for horticulture
  - Refer farmers to knowledgeable resource persons and organizations
  - Organize short seminars and short courses (linked with farmers training centers)
- **Institutional set-up**
  - needs to be determined
- **Dutch role:**
  - Business plan including organizational set-up
  - Training of management and intermediaries

## 3. Training centre for advisors

- **Aim**
  - Provide professional training on all aspects of horticulture
- **Target group:**
  - (In)dependent private advisors, public extension workers, agricultural engineers in producer organisations, (young) graduates
- **Institutional set up**
  - needs to be clarified
- **Dutch role:**
  - Business plan and institutional set up,
  - Competency profiles for advisors and curriculum development,
  - Training of trainers
  - Support to the 2-month compulsory training for certification of advisors.

## 4. Information centre/front office for advisors

- **Aim**
  - Support agricultural advisors in updating their knowledge in a more structured way
- **Target group:**
  - (In)dependent private advisors, public extension workers, agricultural engineers in producer organisations, (young) graduates
- **Actions:**
  - Collect relevant information on horticulture
  - Develop resource portal
  - Refer to knowledgeable resource persons
  - Organize short seminars and short courses
- **Institutional set-up**
  - needs to be determined
- **Dutch role:**
  - Business plan and organizational set-up
  - Exchange visits to the Netherlands
  - Training of management and intermediaries

## 5. Collaboration in Education

### Vocational schools

- Curriculum development in line with labour market requirements
- Train the trainers/teaching staff
- Twinning relation with vocational schools in NL
- Link with life-long education
- Scholarships and fellowships (Erasmus and Leonardo da Vinci)

### Universities

- Curriculum development in line with labour market requirements
- Train the trainers/teaching staff
- Twinning relation with universities in NL
- Joint research programmes,
- Scholarships and fellowships (Erasmus and Leonardo da Vinci)

## 6. Workshops and Conferences

- Series of multi-actor workshops:
  - Aimed at formulation, implementation and evaluation of action plans in various aspects of horticulture
- Strengthen linkages in the supply chain:
  - Food quality and safety throughout the chain
  - Branding and consequences for each actor in the chain
  - Institutional problems – marketing, legislation etc
- International conferences on:
  - EU regulations
  - Agricultural advisory system
- Dutch role:
  - workshop preparation and moderation,
  - backstopping.

## Partners in Turkey

Strategy	Possible partners in Turkey
1. Training centre for farmers	<ul style="list-style-type: none"> <li>■ Union of Turkish Chambers</li> <li>■ Big input suppliers</li> </ul>
2. Information centre for farmers	<ul style="list-style-type: none"> <li>■ Faculty of Antalya University</li> </ul>
3. Training centre for advisors	<ul style="list-style-type: none"> <li>■ Faculty of Ankara and Antalya</li> <li>■ Provincial Directorate of Agriculture</li> <li>■ Big input companies</li> </ul>

## Partners in Turkey

Strategy	Possible partners in Turkey
4. Information centre/front office for advisors	<ul style="list-style-type: none"> <li>■ Faculty in Antalya</li> </ul>
5. Collaboration in Education	<ul style="list-style-type: none"> <li>■ Faculty in Ankara and Antalya</li> <li>■ Ministry of education: DG for vocational education for boys</li> </ul>
6. Multi-actor workshops on: <ul style="list-style-type: none"> <li>● Improved supply chains</li> <li>● EU regulations</li> <li>● Advisory services</li> </ul>	<ul style="list-style-type: none"> <li>■ Union of Turkish Chambers</li> <li>■ Faculty in Ankara and Antalya</li> <li>■ Big input companies</li> <li>■ Private advisors</li> </ul>

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*Carla J.M. Konsten, Landbouwrapad Turkije*
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## Discussie en overleg

- A. Vaststellen van veelbelovende strategieën/projecten
- B. Indeling van organisaties in subgroepen naar strategie
- C. Overleg in subgroepen
  - Globale uitwerking van een samenwerkingsproject (project titel, doel, activiteiten)
  - Mogelijke partners in Turkije en Nederland
  - Mogelijke financieringsbronnen
  - Wat is de eerste stap? Wie doet wat?
- D. Presentatie op flipover – SMART

## Thank you for your attention

### Contact for more information:

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