Economic Diversification in GCC: Prospects and Challenges

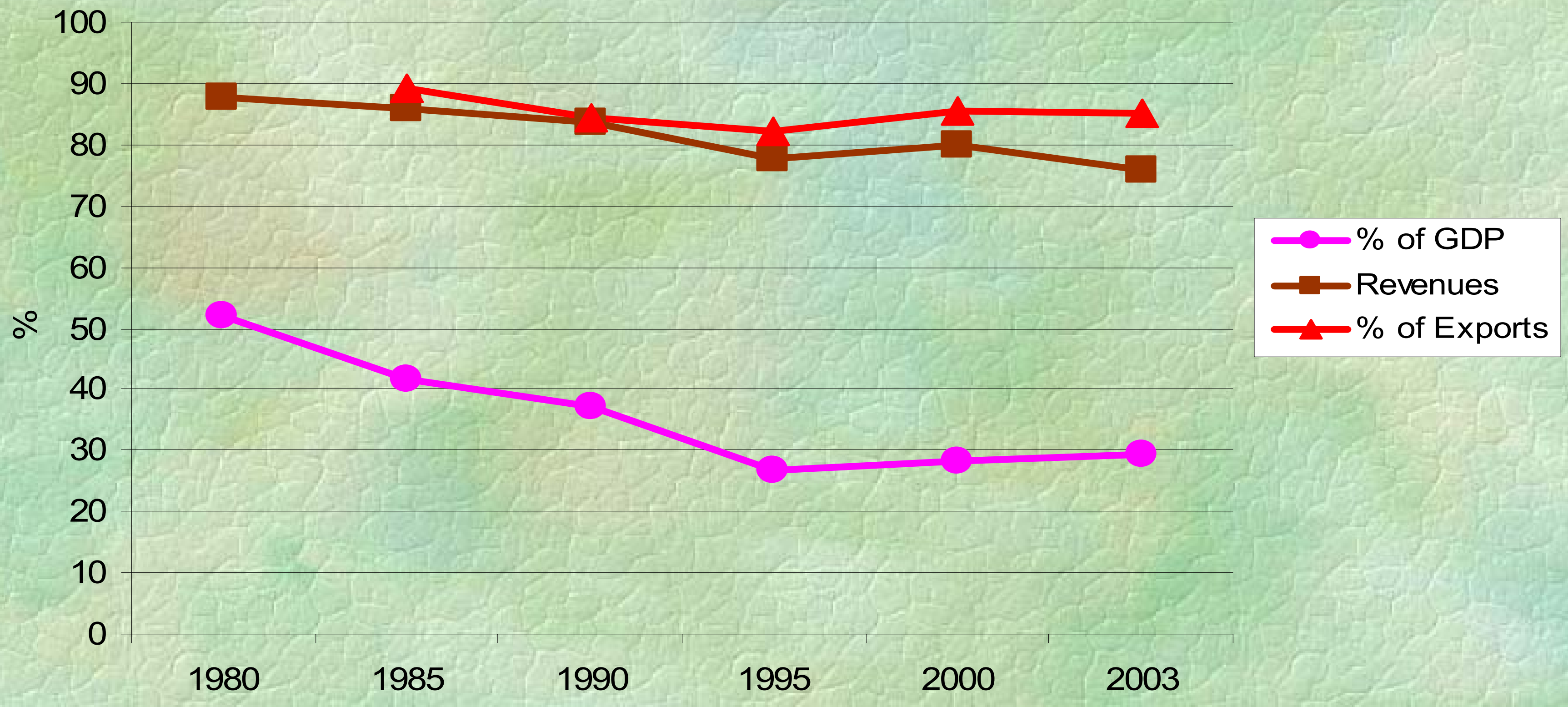
Dr. Mustafa Babiker

Outline

- Diversification Efforts and Outcomes.
- Diversification Opportunities and Sustainability.
- Diversification Challenges and Needs.
- Diversification and Climate Change Response Measures.

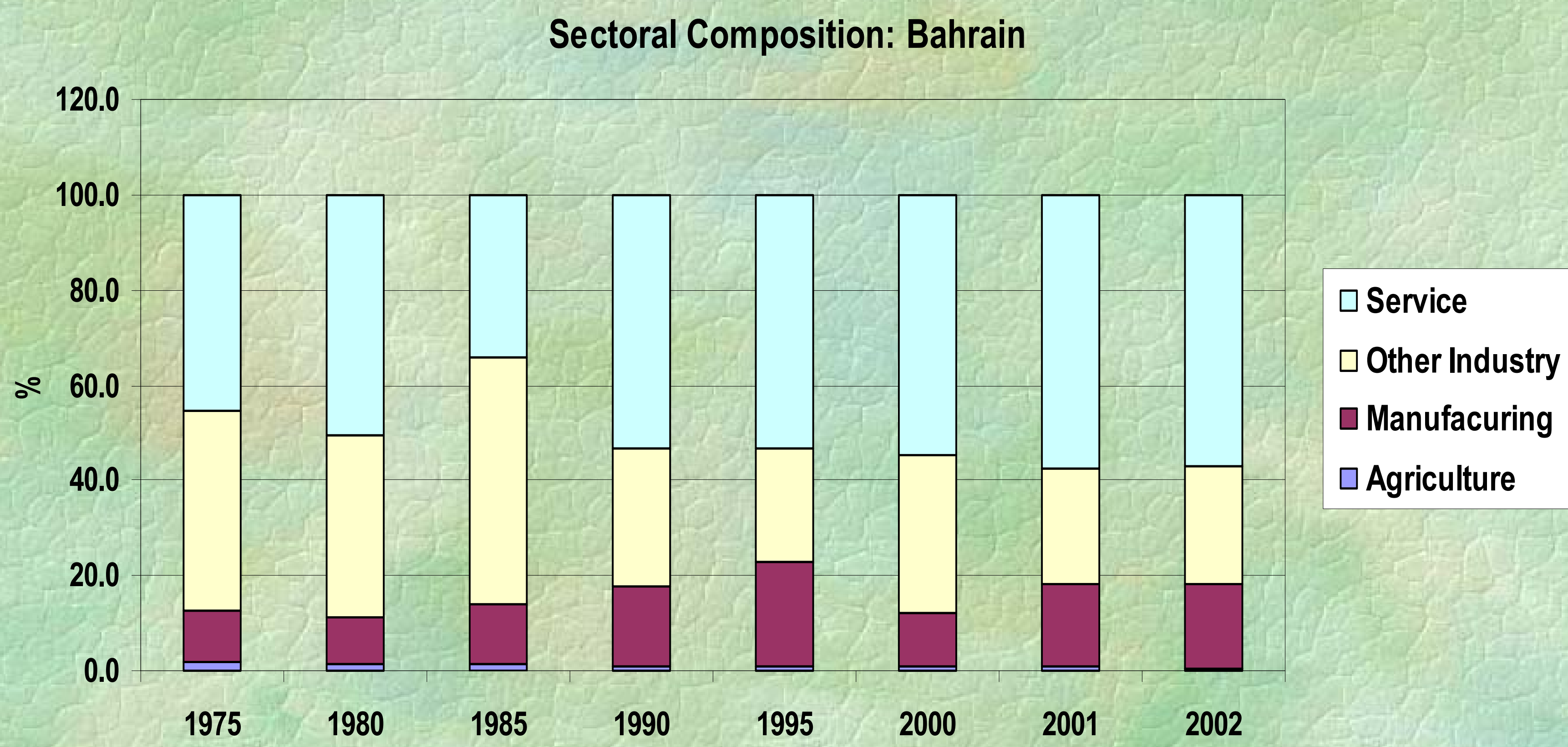
Diversification Efforts and Outcomes

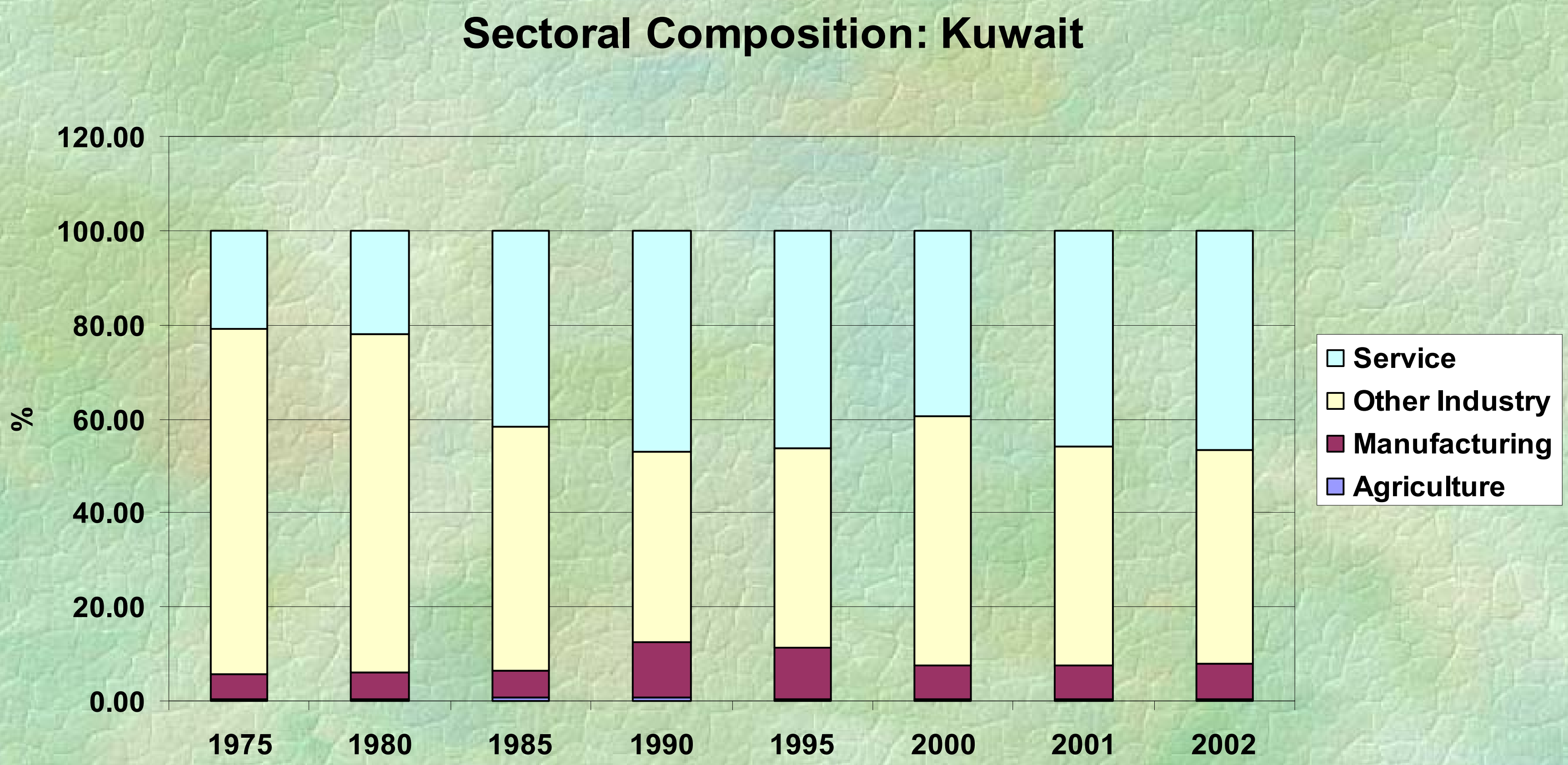
- The role of oil sector in GCC.



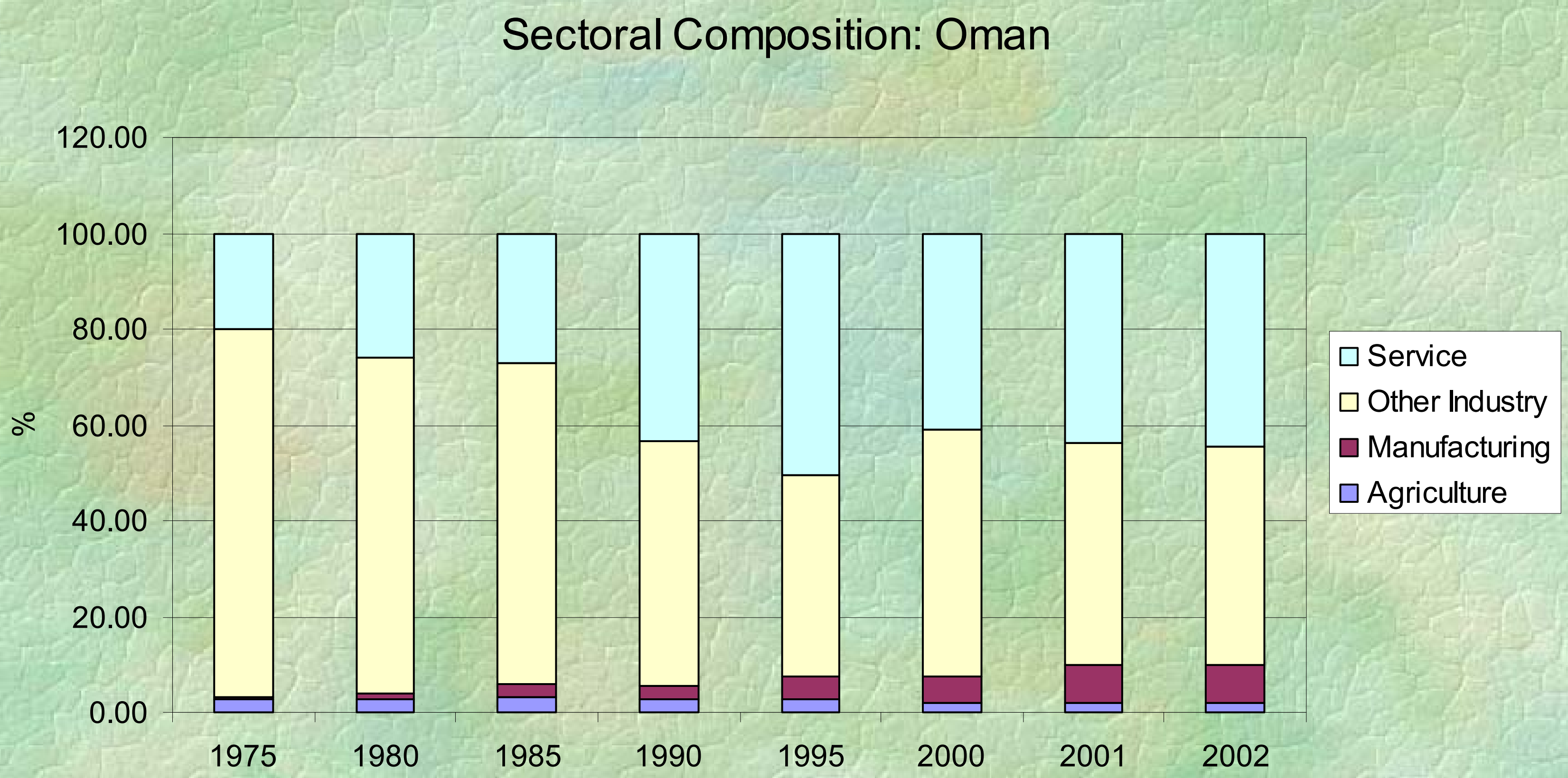
- Dominance of oil sector despite diversification efforts.
  - More than 75% of export proceeds and budget revenues.
  - More than 30% of GDP.
- Decline in oil contribution to GDP from over 50% in 1980 to less than 30% in 2003.

Sectoral Transformation and Structural Change:

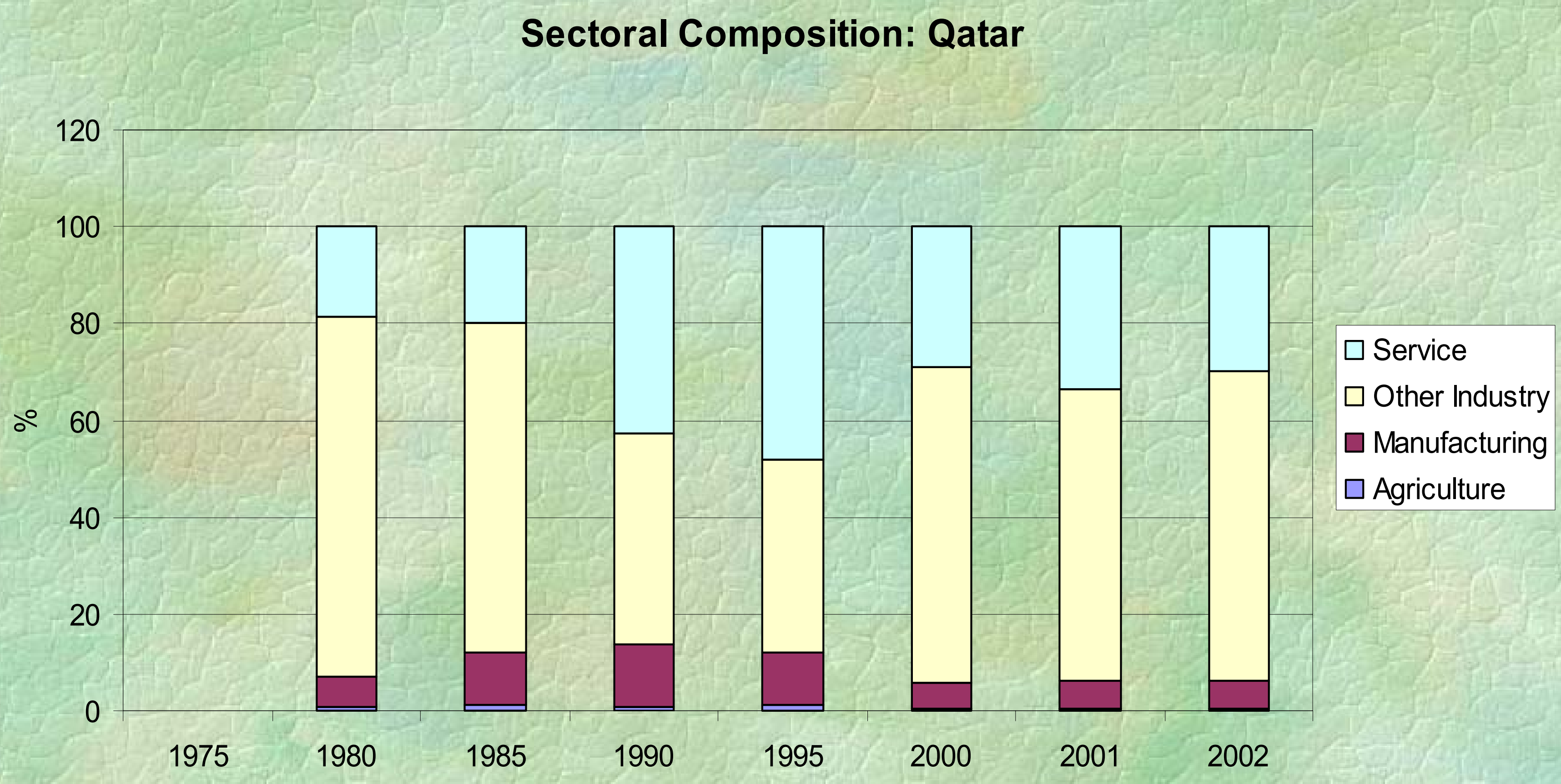




Sectoral Composition: Kuwait
120.00
100.00
80.00
60.00
40.00
20.00
0.00
%
1975
1980
1985
1990
1995
2000
2001
2002
Service
Other Industry
Manufacturing
Agriculture

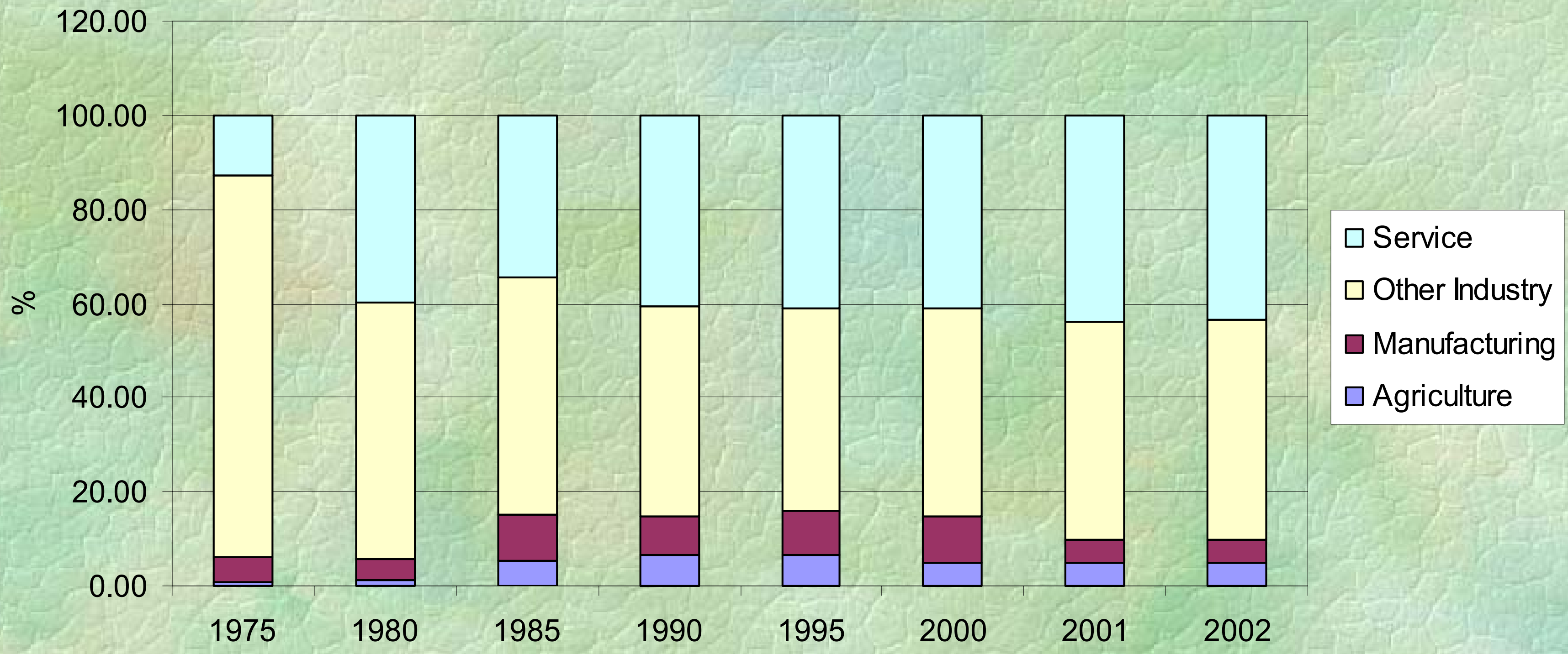


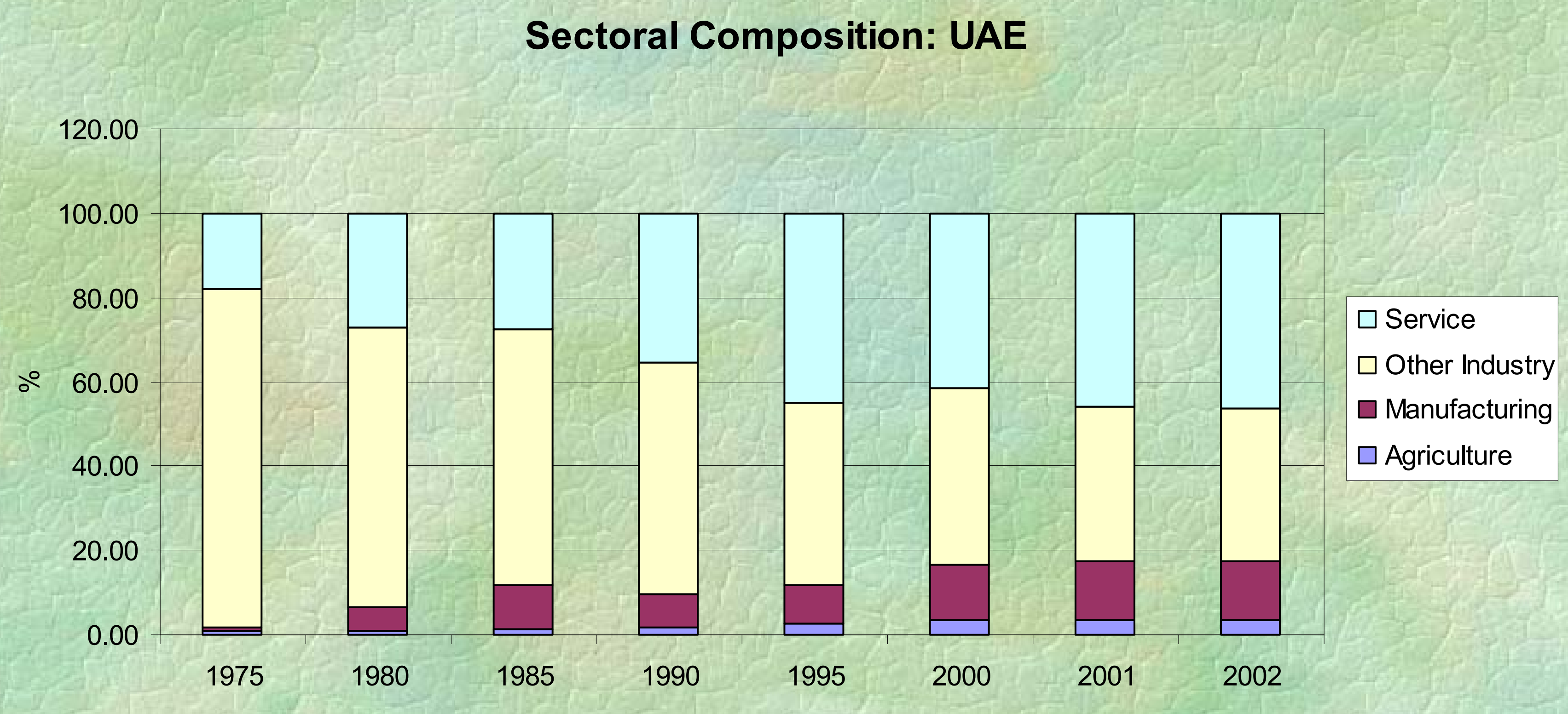
Sectoral Composition: Oman
120.00
100.00
80.00
60.00
40.00
20.00
0.00
%
1975
1980
1985
1990
1995
2000
2001
2002
Service
Other Industry
Manufacturing
Agriculture



Sectoral Composition: Qatar
120
100
80
60
40
20
0
%
1975
1980
1985
1990
1995
2000
2001
2002
Service
Other Industry
Manufacturing
Agriculture

Sectoral Composition: Saudia Arabia




Sectoral Composition: UAE
120.00
100.00
80.00
60.00
40.00
20.00
0.00
%
1975
1980
1985
1990
1995
2000
2001
2002
Service
Other Industry
Manufacturing
Agriculture

- Sectoral Composition of GDP (1975-2002).
  * Increase in the share of service sector.
  * Declining trend in non manufacturing industry.
  * Growing trend in manufacturing sector.
  * Limited contribution of agriculture (Saudi Arabia, Oman and UAE).

- Diversification Trends in Export Sector:
  - Trade Openness and Export Structure:

Trade Openess and Exports Structure (1995-2003)				
	Trade Openess	Man Exports to total exports (%)	Annual Rate of growth of Man exports	Ser Exports to total exports (2003)
Bahrain	146	13.2	0.17	5.1
Kuwait	92	12.7	0.68	13.4
Oman	89	15.5	0.11	3.8
Qatar		11.7	0.14	9.1
Saudi Arabia	64	9.9	0.08	5.8
UAE	138	2.9	0.32	18.7
Korea	70	91.6	0.04	
Malysia	205	78.3	0.05	

* High rate of trade openness $\Rightarrow$ importance of trade for sustainability.
* Manufacturing and service as export diversification avenues.

- Export diversification and concentration indices:

Exports Diversification and Concentration Indices					
	Hirshman Concentration index			UNCTAD Diversification Index	
	2000	2002/2003		2000	2002/2003
Bahrain	-	0.71		-	0.84
Kuwait	0.94	-		0.85	-
Oman	0.81	0.89		0.74	0.85
Qatar	0.9	0.88		0.83	0.83
Saudi Arabia	0.91	0.88		0.83	0.82
UAE	0.93	-		0.86	-
Korea	0.28	0.29		0.28	0.31
Singapore	0.44	0.4		0.38	0.39

* Hirshman concentration index

$$H = \frac{\sqrt{\sum_{i=1}^{n}\left(\frac{x_i}{x}\right)^2} - \sqrt{1/n}}{1-\sqrt{1/n}} \qquad ; \quad x_i \text{ export of commodity } i$$

* Diversification index

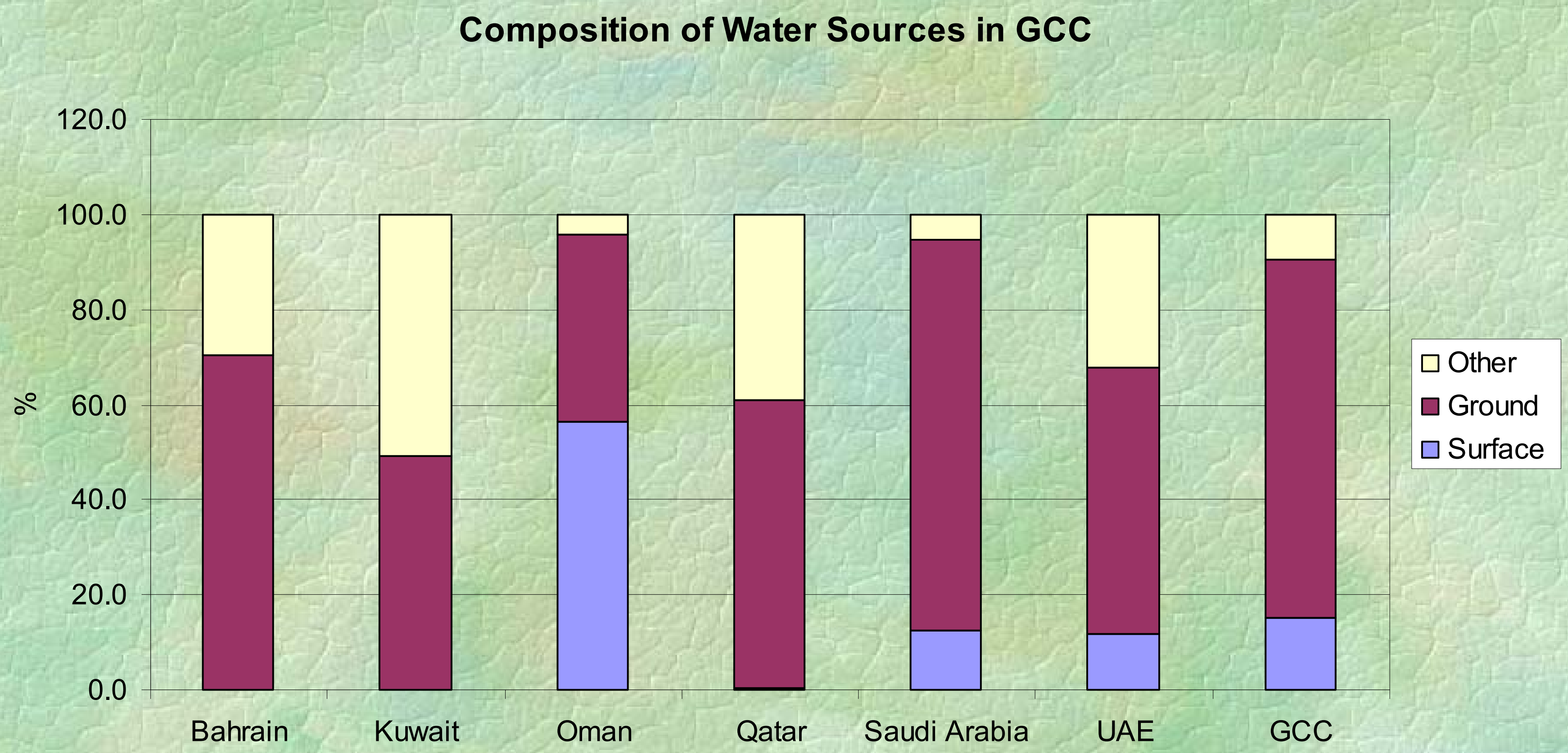
$$DI = \sum_i \frac{\left| h_i - \bar{h}_i \right|}{2}$$

h_i share of commodity i in exports.

* Both measures imply high rates of export concentration.

Diversification Opportunities and Sustainability

- Agriculture Potentials:
  - Water availability and uses:
    - Water sources:



Composition of Water Sources in GCC
120.0
100.0
80.0
60.0
40.0
20.0
0.0
%
Bahrain
Kuwait
Oman
Qatar
Saudi Arabia
UAE
GCC
Other
Ground
Surface

* Water scarcity is a major limit to agriculture potentials.
* 80% reliance on ground water.
* Overuse of ground water.

Ground Water Sustainability Indicator (1995-2000)	
Bahrain	2.2
Kuwait	2.5
Oman	1.2
Qatar	3.8
Saudi Arabia	3.7
UAE	6.9
GCC	3.5

Source: ESCWA statistical abstract

- Agriculture is a major user of water:

Water use by Agriculture (%)		
	1990	2000
Bahrain	53.8	46.4
Kuwait	20.9	18.6
Oman	93.5	84.3
Qatar	56.2	63.8
Saudi Arab	89.6	84.4
UAE	63.8	64.2

Source: ESCWA statistical abstract

* Competition from domestic and industrial uses.
* High cost of non-conventional sources.

- Land availability and uses:
  - Limited arable land (less than 2% of total land area).
  - High rates of exploitation of arable land (for irrigation).

Irrigated Area to Total Arable Land (%)			
	1985	2000	
Bahrain	25	100	
Kuwait	50	71.4	
Oman	87.2	100	
Qatar	55.6	76.4	
Saudi Arab	30.5	42.3	
UAE	38.5	88.9	

Source: ESCWA statistical abstract

- Agriculture production indices:

	1990	1995	2000
Bahrain	96.5	97.7	67
Kuwait	118.8	171.9	185
Oman	99.5	79.5	80
Saudi Arabia	104.2	76.3	68
UAE	102.7	151.7	175

- Saudi Arabia and Oman have some potentials (Self-sufficiency).
- Decline in production indices after 1995.
- High cost of subsidies to alleviate limiting factors.

- Manufacturing Potentials:
  - The Structure of Manufacturing Industry:

The Structure of Manufacturing Industry in 2000 (%)			
Kuwait:	No. of Firms	Employment	Value added
Simple Manufacturing	60.3	29.8	8.6
Large Size	3.6	16.8	6.6
Differentiated Products	0.9	2	1.2
High Skills	0	0	0
Oman:			
Simple Manufacturing	19.3	33.5	15
Large Size	11.8	11.5	7.3
Differentiated Products	1.7	2.3	2.3
High Skills	0.2	0.2	0.3
Malaysia:			
Simple Manufacturing	30.5	15.3	11
Large Size	19.8	21.9	22.3
Differentiated Products	4.5	26.2	28.8
High Skills	0.3	1.9	1.2

- Absence of Competitiveness potentials.
- Dominated by low value added activities.
- Exception is Petrochemical industry.

Contribution of Chemical and Petrochemical to Manufacturing Value Added (%)			
	1990	1995	2000
Kuwait	79.4	72.5	83.4
Qatar	76.9	56.4	46.5
Oman	55.9	35.1	22.1
UAE	59.4	54.3	51.1

- More diversification efforts are needed (small and medium scale enterprises).

Potentials in the Services Sector:

- Composition of Trade in Services:

Composition of trade in Services in 2003 (%)						
	Transport	Travel	Finance	Insurance	Government	Others
Bahrain	39	57	-	-	-	4
Kuwait	48	4	-	3	44	1
Oman	48	48	-	1	-	3
Saudia Arabia	-	-	-	-	-	100

- Mostly tourism and transport services.
- Potential for financial services (Bahrain and Dubai).
- Potential for cargo and transit services (UAE).
- Comparative advantages.

GCC Revealed Comparative Advantages in trade in Services					
	Transport	Travel	Finance	Others	
Bahrain	1	2.3	-	0.2	
Kuwait	3.9	0.2	0.6	0	
Oman	2.1	1.6	0.1	0.1	

- Tourism potentials:
  * Saudi Arabia, UAE and Bahrain.

Tourism Potentials in GCC Economies				
	Tourists in 2003 (m)	Annual growth 1995-2003	Revenues in 2003 (m$)	Annual growth 1995-2003
Bahrain	2.96	9.8	0.74	14.7
Kuwait	-	-	0.12	-0.4
Oman	0.82	11.6	0.22	-
Qatar	0.56	7.6	0.37	-
Saudia Arabia	7.33	10.4	3.42	-
UAE	5.87	12.3	1.44	10.8
Egypt	5.75	9.1	4.58	6.9
Malaysia	10.58	4.4	5.9	5.1

Diversification Challenges and Needs

- General Needs:
  - International Level:
    - Technology transfers:
      * FDI.
      * Partnership.
    - Market Access.
    - Capacity building and technical assistance.

- Domestic Level:
  - Market and institutional reforms.
  - Investment policies.
  - Enhancement of private sector participation.
  - Small and medium scale enterprises.
  - Education, technology and human capital.

- Sectoral Options and Needs:
  - Agriculture:
    - High tech agriculture.
    - Soil management technologies.
    - Water management and water markets.
    - Non-conventional water sources technologies.
    - Rationalization of subsidy policies.

- Manufacturing:
  - Short and medium term options:
    - * Petrochemical (downstream products).
    - * Capital intensive export oriented (partnerships and industrial zones).
  - Long term options:
  - High tech.
  - Knowledge intensive.

- Needs:
  - Market Access (Petrochemical).
  - Modernization and assistance programs (METAP).
  - Development of entrepreneur skills (partnership).
  - Small and medium scale enterprises (start ups).
  - Incubators and technology zones.
  - Private sector participation and FDI.

- Services:
  - Options:
    * Tourism.
    * Transport, cargo, and transit services.
    * Finance and insurance.
  - Needs:
    * Financial markets reforms.
    * Privatization (Telecom and airlines).
    * Competition policies.

Diversification and Climate Change Measures

- Model: EPPA4
- Scenario: A structural shift to non-oil related industries modeled as 10% improvement in productivity of those sectors.
- Case: Kyoto.
- Region: Middle East.
- Results:

	GNP Cost Before (%)	GNP Cost After (%)	Change in Cost (%)
2010	1.5	1.2	-14.9
2015	2.2	1.8	-14.3
2020	3.0	2.5	-14.6
2025	3.8	3.2	-15.4
2030	4.7	3.9	-16.3