

PAPER 3: UNIT 1 Production, Location and Change

Recommended Prior Knowledge:

Some familiarity with common terminology about agriculture and industry would be an advantage. Some of the basic material may have already been covered in the *Population-resource relationships* section of the AS Human Core material (1.3). Candidates who have studied Economics, Business Studies, Development Studies, Natural Economy or Geography at IGCSE level may already have a working knowledge of some of the concepts and terminology.

Context:

There may be some cross-linkage with material from the Advanced Physical Geography *Tropical Environments* option when farming systems are being studied. Food production may have been studied in AS *population-resource relationships*.

Outline:

The four sub-sections examine the economic basis of societies, leading in a logical progression from primary through to secondary and tertiary/quaternary sectors. The basic systems concept is used as a framework, but the emphasis is on real-life examples. Though theories and conceptual models may be referred to as a starting point, the aim is to use case studies as the main vehicle of learning. Current issues and policies are more important than past locational factors, particularly in view of the trend towards globalisation of markets for both primary and secondary products. Another strand that should be borne in mind is the global nature of the environmental issues raised, as well as more local concerns. Traditional systems are often in conflict with national economic needs, but may be the only sustainable solution in the long terms

	Contents	Objectives	Terminology	Suggested Teaching Activities	Online Resources	Other resources
1.1	Agricultural Systems and food production	Knowledge and understanding of factors affecting agricultural land use and practices	Arable Pastoral Subsistence Commercial Land tenure Irrigation Export production	<p>Introduce the idea of classifying agricultural production systems and the basis for classification.</p> <p>Main factors to be covered are physical (land/relief, soil, climate), social (cultural practices, inheritance laws, education, health), economic (money/capital, labour force) and political (government policy, NGO assistance).</p>		<p>Nagle & Spencer (Diagrams) 97-98 is the best intro. Also: Cook, Hordern, McGahon & Ritson, ch 4,194-204</p> <p>Nagle (Dev & Underdev) 55 has a useful map Also Waugh 438</p>

		Understanding of the concept of an agricultural system	Inputs Outputs Throughputs Subsystems	A blank systems diagram could be filled in by students as each input, output and process is referred to. This would help to reinforce the links between each.		Carr, 121-125 covers this in detail
		Study of examples of intensive and extensive agricultural production	Extensive Intensive Von Thünen model	The basic principles of the model should be discussed, but there is no need to learn it in detail. The link to intensive and extensive farming systems needs to be made, particularly in the context of the student's own country, where examples are available. Rice production in LEDCs would be a useful focus for case study examples		Carr, 131-136 Waugh 430-435 Various examples and case studies in Waugh 438-452

1.2	<p>The management of agricultural change</p> <p><i>The syllabus requires a case study of one country only – the candidate's own country would probably be the most useful one to study.</i></p>	Understanding of the nature of agricultural change	<p>Biotechnology Irrigation</p> <p>Agribusiness</p>	<p>Agricultural changes may occur as deliberate policy or because of external factors such as climate change. If examples are available for the home country, these should be studied.</p> <p>Modern technology has introduced controversial methods such as GM (genetically modified) crops.</p> <p>Alternatives include organic farming Intensive agriculture in the Fens</p>	<p>http://www.monsanto.com/monsanto/layout/sci_tech/agg_biot_ech/def</p> <p>http://www.organic-europe.net/country_reports/poland/default.asp (this site also deals with other countries)</p>	<p>Nagle (D & U) 58-65 Cook et al 211-212</p> <p>Climate change and vegetation (Geo Factsheet 75 Sept 1999)</p> <p>Hart et al 135 Prosser 150</p>
	<p><i>Other case studies are suggested here only as alternative or supporting information</i></p>	An understanding of agricultural change at the individual scale	<p>Diversification Organic farming</p>	<p>In a global society, farmers are affected by external factors In MEDCs farmers are exploring alternatives to intensive farming</p> <p>Roves farm visitor centre</p>	<p>http://www.oxfam.org.uk/coolplanet/milkingit Interactive case study – compares the effects of trade on dairy farmers in 2 different countries</p>	<p>Hart et al 136-137</p> <p>Hart et al 141</p>
					<p>http://www.defra.gov.uk/ covers various farming issues</p>	

		An understanding of agricultural change at the national scale <i>Again, use of the home country should be considered first for examples</i>	Agricultural reform policies Sustainable agriculture	If the home country/region is implementing agricultural changes, this should be the primary focus of study. Other material available: Agriculture in South Africa Agricultural change in Eastern Europe	http://www.countryside.gov.uk http://www.leafuk.org http://www.vshiva.net/campaigns.htm	Nagle (D&U) 63-65 Hart (ed) 132 The Crisis in British Farming (Geo Factsheet 105, Jan 2001)
1.3	Manufacturing and related service industry	Understanding the reasons for industrial location	Factors: Relief/land/site Labour supply Capital Transport Government policy Raw materials	The differences in location factors for old “heavy” industries such as steel or shipbuilding compared to modern “footloose” industries could be a useful starting point. This could be stimulated by two location diagrams or a brainstorming exercise.		Nagle & Spencer (Diagrams) 105-107 Cook et al 245 – 249 cover location factors well and look at High-tech companies in Cambridge, Nike sports in Asia, food processing and electronics in Britain. Waugh ch 19

		<p>Models of industrial location</p>	<p>Agglomeration Horizontal linkage Vertical linkage Functional linkage Industrial inertia Industrial estate</p>	<p>Since they will not be tested in the examination, the theories of Weber, Losch, Smith and the Product Life Cycle model could be presented to the students in a comparative form, perhaps with sufficient discussion to ensure that the concepts behind them are understood</p>		<p>Cook et al has the most comprehensive and well exemplified coverage of industrial location and changes, with many case studies 242 – 257</p> <p>Nagle & Spencer (diagrams) 113</p> <p>Guinness & Nagle 140-141</p>
		<p>To study the processes leading to industrial change and development: agglomeration and linkages</p> <p>Where possible, examples from the home region should be studied.</p>	<p>Economies of scale Diseconomies of scale Globalisation Global shift Inward investment</p>	<p>The emphasis needs to be on <i>Character</i> <i>Location</i> <i>Organisation</i> The location factors have changed over time due to new technology and competition.</p> <p>Use familiar examples from the home area where possible.</p> <p>The following case studies of industrial development could be introduced to illustrate the ideas further if required, such as:</p> <p>Global shift in the steel industry</p>		<p>One of the best sources for this is Nagle (D & U) 75-77, where the models are clearly and simply explained.</p> <p>Flint C and Flint D chapter 7 deals with urban examples of secondary and tertiary industry</p>

			Industry in Maharashtra, India Industrial Development in S. Korea		Guinness & Nagle 128-132 also deals with location factors and with models 133 –139
	To understand the reasons for development of industrial estates and Export Processing Zones (EPZs)	Export Processing Zone (EPZ)	High-technology industry in the UK The US manufacturing belt The Rise of the Pacific Rim Manufacturing Industry in Mexico City Students should look for similarities of approach in the successful countries e.g. Mauritius, China, Mexico and many SE Asian countries		Nagle (D & U) 78-82 Nagle (D & U) 83-84 Prosser (Human Systems) 99 – 103 Flint and Flint 107-109 Guinness and Nagle 150 Research & Development Parks (Geo Factsheet 94, April 2000)

		To learn about the importance of the informal sectors of manufacturing and services, especially in LEDC cities	Informal sector Manufacturing Service industries	<p>Tertiary and quaternary industries have grown in importance, but a large informal sector has also developed, especially in LEDC urban areas.</p> <p>Examples from the home region could be supported by Case study – London and Dublin.</p> <p>Informal employment varies in type, scale and location from formal employment. It is more uncertain in terms of income and working conditions and is unregulated and untaxed e.g. street vendors, shoe-cleaning.</p>		<p>Guinness & Nagle, 150</p> <p>Guinness & Nagle 162 – 168</p> <p>Waugh 523-525</p> <p>Nagle Changing Settlements p110</p> <p>Flint and Flint 109 – 110</p>
1.4	The management of industrial change	<p>To understand the basis of industrial policy in one country</p> <p>To evaluate the success of the policy</p>	<p>Regional disparities</p> <p>Development zones</p> <p>Enterprise zones</p> <p>Business parks</p> <p>Science Parks</p> <p>Deindustrialisation</p> <p>Reindustrialisation</p>	<p>Governments try to control and develop their resources by planning industrial development</p> <p>The home country should form the focus for this unit if there is sufficient material available.</p> <p>Other examples include the following:</p>		<p>Hill (Advanced Geography Case Studies) 106-115</p> <p>Geography (GA Journal) April 2004, 127-139</p> <p>Also Waugh 528-530</p>

				<p>The industrial and economic development of Singapore</p> <p>Spatial Changes in China's industrial Structure</p>		<p>Bowen & Pallister 260-261</p> <p>Geo Factsheet 41 1998</p> <p>Deindustrialisation</p> <p>Flint and Flint 139 – 144</p>
				<p>The North East of England</p> <p>The Ruhr in Germany</p>		<p>Nagle (D & U) 87-89</p> <p>Structural Change in the Ruhr (Geo Factsheet 154)</p>