DOWNLOAD PDF AGRICULTURE AND FOOD (COLLINS A LEVEL GEOGRAPHY)

Chapter 1 : National Agriculture in the Classroom

Looking for Agriculture And Food Collins A Level Geography Free Download Do you really need this book of Agriculture And Food Collins A Level Geography Free Download It takes me 37 hours just to acquire the right download link, and another 8 hours to validate it.

Describe the influence of natural and human inputs on the processes and outputs of a large scale commercial farming operation Starter: Watch both Meatrix videos above and make a note on this sheet of the controversies caused by large scale commercial meat farming around the world. Their website is here To build your case study you will need the location map to the right as well as the videos underneath. Use the worksheet above to record down your responses. Your case study should include the following: Natural inputs relief, climate and soil 3. Human inputs economic, social and ICT. Influences on the scale of production 5. The products of the farm. Other Outputs from the cows! Describe the influence of natural and human inputs on the processes and outputs of a small scale subsistence farming operation Remember the definition of subsistence farming? Watch the first video to the right. On the worksheet right , outline how subsistence farming is different to large scale commercial farming. On your worksheet from task 1, i. Outline the reasons why people find subsistence farming hard in rural parts of Ghana. Why do these people move to the shanty towns in the urban areas? Rice is Life to the right. Take notes and outline why rice is so important for the Asian population. When the demand for food exceeds the supply of food leading to undernourishment. Food Shortages What are the causes of food shortage? How much rice can you donate in 5 minutes? Click here to play. You can record your spider diagram on the worksheet to the right. Complete the associated activities on the second page of the worksheet. Task 3 - Read these recent articles on food shortage and famine in Yemen and South Sudan. Make a note of the correct responses to the questions in your exercise book. How many people die per day from hunger? Of that total, how many are children? What does WFP stand for and who is it run by? How does the WFP distribute its food? How else does the WFP help in famine prone areas? How many people does WFP feed per year? Task 6 - Complete the two tasks set out on this worksheet. Can be completed online or by hand. Make notes on how people in Syria are becoming hungry and what the WFP are trying to do in cities such as Damascus. You will also need this insert. All content copyright geographypods unless otherwise stated. Photo used under Creative Commons from Padmanaba

DOWNLOAD PDF AGRICULTURE AND FOOD (COLLINS A LEVEL GEOGRAPHY)

Chapter 2 : Agroecology - Wikipedia

Agriculture And Food Collins A Level Geography PDF Format Agriculture And Food Collins A Level Geography Agriculture Wikipedia Agriculture Is The Cultivation Of.

Share via Email Dried sunflowers in a village near Sofia, Bulgaria. Heatwaves in Europe, some as hot as 40C, have ruined the harvest in many regions of the country. A year of not enough or too much rainfall, a hot spell or cold snap at the wrong time, or extremes, like flooding and storms, can have a significant effect on local crop yields and livestock production. While modern farming technologies and techniques have helped to reduce this vulnerability and boost production, the impact of recent droughts in the USA , China and Russia on global cereal production highlight a glaring potential future vulnerability. There is some evidence that climate change is already having a measurable affect on the quality and quantity of food produced globally. But this is small when compared with the significant increase in global food production that has been achieved over the past few decades. All else being equal, rising carbon dioxide concentrations â€" the main driver of climate change â€" could increase production of some crops, such as rice, soybean and wheat. However, the changing climate would affect the length and quality of the growing season and farmers could experience increasing damage to their crops, caused by a rising intensity of droughts, flooding or fires. The latest IPCC report predicted improving conditions for food production in the mid to high latitudes over the next few decades, including in the northern USA, Canada, northern Europe and Russia. Conversely, parts of the subtropics, such as the Mediterranean region and parts of Australia, and the low latitudes, could experience declining conditions. The future course of global food production will depend on how well societies can adapt to such climatic changes, as well as the influence of other pressures, such as the competition for land from biofuel production. The richer, higher latitude countries are likely to have a greater capacity to adapt and exploit changing climatic conditions. There are many uncertainties in such predictions. The world has not seen such changes in climate for millennia, and so it is impossible to know how our agricultural systems will react in the real world. For example, the complex interlinkages with the impacts of climate change on pests, diseases and pollinators, like bees, are largely unknown. Also, climate models have difficulty in accurately predicting the detailed local environmental changes that are important for food production, particularly weather extremes. Fisheries are already stressed by overexploitation and pollution. Warming surface waters in the oceans, rivers and lakes, as well as sea level rise and melting ice, will adversely affect many fish species. Some marine fish species are already adapting by migrating to the high latitudes, but others, such as Arctic and freshwater species, have nowhere to go. The absorption of carbon dioxide emissions by the oceans also has a direct impact on marine ecosystems through ocean acidification. A Foresight report concluded that climate change is a relatively small factor here, at least in the short term, when compared with the rapid increases in global food demand expected in the next decade. On current projections , by there will be between one and three billion additional mouths to feed. As people become wealthier, they also demand more food and disproportionally more meat, which requires far more land and water resources per calorie consumed. When these factors are combined, it points toward a future of increasing and more volatile food prices. As was seen during the â€"08 food price spikes, the poorest countries and communities will be hit first and hardest. The Foresight report concluded that international policy has an important role to play here â€" today, despite plentiful supplies of food globally, almost one billion people are undernourished. Finally, food production itself is a significant emitter of greenhouse gases, as well as a cause of environmental degradation in many parts of the world. This means that to limit the long-run impacts of climate change, food production must become not only more resilient to climate but also more sustainable and low-carbon itself.

DOWNLOAD PDF AGRICULTURE AND FOOD (COLLINS A LEVEL GEOGRAPHY)

Chapter 3 : Agricultural Systems - GEOGRAPHY FOR & BEYOND

Agriculture And Food Collins A Level Geography Agriculture wikipedia, agriculture is the cultivation of land and breeding of animals and plants to provide food, fiber, medicinal plants and other products to sustain and.

Spatial Patterns of Food Food Production by value Global food production is not evenly distributed. Food production is influenced by two main drivers, environmental capacity and human capacity. Environmental capacity is influenced by the physical environment, most notably, climate, water availability and soil type. Human capacity refers to both the population size and skills in regard to agriculture and the financial capital a country can invest into agricultural infrastructure. The map to the left shows the value of food production in USD for A clear pattern is observed in terms of population size and wealth of countries. This is largely due to the intensification of farmimg methods and large capital investments. In contrast smaller countries and less developed countries, like those found in Sub-Saharan Africa produce less food. However, it is important to look at the trends in growth by region. Food Production by Region. Waugh The production of food by region between and is shown in the following graph. It shows a number of patterns, which will be explained through this section of the site. Firstly, it is important to understand the graph. The index of refers to the base level of production in Therefore, any movement away from the base level can be seen as a percentage change. For example, world output has increased by percent from to The vast majority of this increase is as a result of increases in Asia. In Asia we can see almost a 75 percent increase in food production. In contrast, Africa shows a general decline of 10 percent by The graph also shows that food production is quite variable over time. Most regions except for Asia have experienced periods of increased output and periods of decline. The graph reveals a complex global pattern and this section of the site will look to examine the patterns it shows. Why does food production experience spikes of growth and decline? What has enabled Asia to increase its food production by so much? Why has European food production fallen since the s? In contrast, why has US food production increased over the whole time period? Finally, and very importantly, why has African food production declined over the 40 year period despite independence, development and billions of dollars of multilateral aid support? The map to the left shows the net trade in food. There are a number of important points of reference. American and South East Asian economies also net exporters of food. In Europe, only a few countries such as France and Germany are net exporters of food, with many other countries net importers. The most striking pattern in the map is the reliance of the entire African continent on food imports, especially the North African region. The other notable pattern is the reliance both China and India have on food imports despite the scale of their own domestic agricultural output. This is a useful map as we can clealy see spatial variation and we can support it with the data. Canada, USA and Europe consume the most calories, with average per capita consumption per day of over This is more than 40 higher than the recommended daily calorie intake of for men and for women. The pattern also shows that in most countries of the world, the average calorie intake is close to or higher than the recommended daily amounts. Sub-Saharan Africa stands out with many countries experiencing below average per capita calorie intake, with DRC experiencing the lowest intake of less than calories. The scary thing with a chloropleth style map is that it presents country averages and in doing so it hides the extremes within the country. The data hides the dangerously low pattern that reflect hunger and the worryingly high data that might suggest higher prevelance of obesity. The following map shows a slightly different set of data for Ethiopia. It shows the kilocalorie gap that exists within the regions. The following map left taken from the worldmapper website shows underweight children. The map works by enlarging or shrinking the land space in each country proportional to the extent of hunger experienced in the country. This is a useful classroom resource for starting a discussion. This perhaps distracts the attention away from the problem in Sub-Sharan Africa. The FAO map above right on hunger, in contrast, highlights the significant problem in Sub-Sahran Africa, showing hunger prevalance rates of over 35 percent in many countries and for DRC, 50 percent of the population. India appears to have hunger rates of between

15 and 25 pecent. Often when students interpret and anlayse patterns in maps like the FAO hunger map, they focus a lot of their attention on the problem regions, in this case Sub-Sahran Africa; neglecting the areas like the US and Europe that have less than 5 percent hunger. In defense of worldmapper it really draws this to the attention of the reader as we can hardly see Europe on the map. They create the perfect opportunity for students to develop comments that require more synthesis rather than just description. Food shortage takes many forms. There are a number of key terms that describe the type of food shortage. These ara as follows: Malnutrition is the condition that results from taking an unbalanced diet in which certain nutrients are lacking, in excess, or in the wrong proportion. It develops over the long term. Malnutrition is most found within low income groups. Nutrient deficiency is found mostly in low income countries and obesity if found in high income countries and although obesity is most common among low income groups it is increasingly prevalent across all income groups. We classify the root causes of food insecurity into two broad categories, Food Availability Deficit FAD and Food Entitlement Deficit FED , although it is generally accepted that the causes of food insecurity are complex. FAD, typically refers to the underlying environmental conditions, such as climate and biosphere. Droughts and desertification lead to crop failure and reduction in crop yield, which have a direct impact on food security. Other FAD factors relate to the remoteness and accessibility of certain regions, problems of supply, transportation and general logistics can lead to the availability of food falling. FED, refers to the more complex, socio-economic and political factors that reduce entitlement to food. This can occur in a region experiencing increases in food production. This is common in many places of the world and can be suggested to be the root cause of malnutrition. Agricultural Systems There are many different types of farm. They can be classified as shown below. In reality farms are often a combination of different types of farm, for example, a commercial mixed farm. Common in most countries 2. Arable Farming - involves the growing of crops 4. Pastoral Farming - invovles the rearing of livestock 5. Mixed Farming - involves a combination of arable and pastoral farming 5. Intensive Farming - where the farm size is small in comparison with the large amount of labour, and inputs of capital, fertilisers etc. Extensive Farming - where the size of a farm is very large in comparison to the inputs of money, labour etc.. Agribusiness - involves the large corporate organisation of farming- often farms are run for profit maximisation and economy of scale. Agribusiness often takes over two more stages of the system, e. The diagram below shows a farming system diagram. Inputs describe what is required to farm. They involve the natural physical inputs into a farm and the human inputs. Generally, the more human capital inputs a farm uses, the more intensive it becomes. Therefore, extensive farms describe farms that are large in relation to either capital or employment. In contrast, subsistence farms tend to be small scale, limited in terms of both capital inputs and land area. However, they do require intensive labour inputs due to a lack of available machinery and other capital inputs. There are other types of subsistence farms that are more extensive. Shifting cultivation is found in the tropical rainforest areas of the world where people engage in a kind of nomadic farming. This shifting cultivation is called slash and burn. In TRF, the soils have little ability to hold nutrients because of the large amounts of rain. The trees and brush are hacked down and burned and these areas are then planted with corn, millet, rice, manioc, yams and sugar cane. Then the field is moved to another area and the plot is allowed to re-vegetate. Nomadic herding is another system of extensive subsistence farming. Momadic herding is the wandering, but controlled movement of livestock, solely dependent on natural forage â€” it is the most extensive type of land use system. Sheep and goats are the most common with cattle, horses and yaks locally important. The common characteristics are hardiness, mobility and ability to subsist on sparse forage. These animals provide milk, cheese, meat, hair, wool and skins and dung for fuel. FAO In reality farming systems are far more complex than the above flow chart. They involve a complex web of interactions between the physical environment in all its characteristics and features and the human interactions. This is highlighted from the farmimg system as drawn by the Bangladeshi farmer. In this example, we can see the intimate knowledge of the day to day routines of a labour intensive mixed farm. In this example farm land is not fixed in one place but spread around in different locations, with even specific trees like the Palmera Palm referred to.

DOWNLOAD PDF AGRICULTURE AND FOOD (COLLINS A LEVEL GEOGRAPHY)

Chapter 4 : How will climate change affect food production? | Environment | The Guardian

Landmark Geography Ã¢â‚¬" Agriculture and Food (Collins A Level Geography) by Michael Raw, Peter Atkins and a great selection of similar Used, New and Collectible Books available now at calendrierdelascience.com

Ecological strategy[edit] Agroecologists do not unanimously oppose technology or inputs in agriculture but instead assess how, when, and if technology can be used in conjunction with natural, social and human assets. Thus, agroecology is not defined by certain management practices, such as the use of natural enemies in place of insecticides , or polyculture in place of monoculture. Instead, agroecologists may study questions related to the four system properties of agroecosystems: Recognizing that these properties are found on varying spatial scales, agroecologists do not limit themselves to the study of agroecosystems at any one scale: Agroecologists study these four properties through an interdisciplinary lens, using natural sciences to understand elements of agroecosystems such as soil properties and plant-insect interactions, as well as using social sciences to understand the effects of farming practices on rural communities, economic constraints to developing new production methods, or cultural factors determining farming practices. Approaches[edit] Agroecologists do not always agree about what agroecology is or should be in the long-term. Definitions of agroecology, therefore, may be first grouped according to the specific contexts within which they situate agriculture. Agroecology is defined by the OECD as "the study of the relation of agricultural crops and environment. A more common definition of the word can be taken from Dalgaard et al. Consequently, agroecology is inherently multidisciplinary, including factors from agronomy , ecology , sociology , economics and related disciplines. In the global south, the term often carries overtly political connotations. Such political definitions of the term usually ascribe to it the goals of social and economic justice; special attention, in this case, is often paid to the traditional farming knowledge of indigenous populations. In these cases, agroecology is seen more strictly as a scientific discipline with less specific social goals. Agro-population ecology[edit] This approach is derived from the science of ecology primarily based on population ecology , which over the past three decades has been displacing the ecosystems biology of Odum. Buttel explains the main difference between the two categories, saying that "the application of population ecology to agroecology involves the primacy not only of analyzing agroecosystems from the perspective of the population dynamics of their constituent species, and their relationships to climate and biogeochemistry , but also there is a major emphasis placed on the role of genetics. In fact, the first agro-ecologists were indigenous peoples that advocated development policies and programmes to support their systems, rather than replacing them. In this, natural ecology and agroecology are the major headings under ecology. Natural ecology is the study of organisms as they interact with and within natural environments. Correspondingly, agroecology is the basis for the land-use sciences. Here humans are the primary governing force for organisms within planned and managed, mostly terrestrial, environments. As key headings, natural ecology and agroecology provide the theoretical base for their respective sciences. These theoretical bases overlap but differ in a major way. Economics has no role in the functioning of natural ecosystems whereas economics sets direction and purpose in agroecology. Under agroecology are the three land-use sciences, agriculture , forestry , and agroforestry. Although these use their plant components in different ways, they share the same theoretical core. Beyond this, the land-use sciences further subdivide. The subheadings include agronomy, organic farming , traditional agriculture, permaculture , and silviculture. Within this system of subdivisions, agroecology is philosophically neutral. The importance lies in providing a theoretical base hitherto lacking in the land-use sciences. This allows progress in biocomplex agroecosystems including the multi-species plantations of forestry and agroforestry. Applications[edit] To arrive at a point of view about a particular way of farming, an agroecologist would first seek to understand the contexts in which the farm s is are involved. Each farm may be inserted in a unique combination of factors or contexts. Each farmer may have their own premises about the meanings of an agricultural endeavor, and these meanings might be different from those of agroecologists. Generally, farmers

seek a configuration that is viable in multiple contexts, such as family, financial, technical, political, logistical, market, environmental, spiritual. Agroecologists want to understand the behavior of those who seek livelihoods from plant and animal increase, acknowledging the organization and planning that is required to run a farm. Three of the main areas that agroecologists would look at in farms, would be: Environmental impacts caused by organic and non-organic milk production can vary significantly. For both cases, there are positive and negative environmental consequences. Because organic milk production reduces pesticides utilization, it increases land use per ton of milk due to decreased crop yields per hectare. Mainly due to the lower level of concentrates given to cows in organic herds, organic dairy farms generally produce less milk per cow than conventional dairy farms. Because of the increased use of roughage and the, on-average, lower milk production level per cow, some research has connected organic milk production with increases in the emission of methane. A key component of animal welfare is freedom to perform their innate natural behavior, and this is stated in one of the basic principles of organic agriculture. Also, there are other aspects of animal welfare to be considered â€" such as freedom from hunger, thirst, discomfort, injury, fear, distress, disease and pain. Because organic standards require loose housing systems, adequate bedding, restrictions on the area of slatted floors, a minimum forage proportion in the ruminant diets, and tend to limit stocking densities both on pasture and in housing for dairy cows, they potentially promote good foot and hoof health. Some studies show lower incidence of placenta retention, milk fever, abomasums displacement and other diseases in organic than in conventional dairy herds. Both organic and non-organic farms can have good and bad implications for the life quality of all the different people involved in that food chain. As for the public health or food safety concern, organic foods are intended to be healthy, free of contaminations and free from agents that could cause human diseases. Organic milk is meant to have no chemical residues to consumers, and the restrictions on the use of antibiotics and chemicals in organic food production has the purpose to accomplish this goal. Although dairy cows in both organic and conventional farming practices can be exposed to pathogens, it has been shown that, because antibiotics are not permitted as a preventative measure in organic practices, there are far fewer antibiotic resistant pathogens on organic farms. In an organic dairy farm, an agroecologist could evaluate the following: Can the farm minimize environmental impacts and increase its level of sustainability, for instance by efficiently increasing the productivity of the animals to minimize waste of feed and of land use? Are there ways to improve the health status of the herd in the case of organics, by using biological controls , for instance? Does this way of farming sustain good quality of life for the farmers , their families, rural labor and communities involved? Views on no-till farming[edit] No-tillage is one of the components of conservation agriculture practices and is considered more environmental friendly than complete tillage. The benefits provided by no-tillage to predators may lead to larger predator populations, [29] which is a good way to control pests biological control , but also can facilitate predation of the crop itself. In corn crops, for instance, predation by caterpillars can be higher in no-till than in conventional tillage fields. And because no-till farming provides good environment for pathogens, insects and weeds, it can lead farmers to a more intensive use of chemicals for pest control. Agroecologists, then, will evaluate the need of different practices for the contexts in which each farm is inserted. In a no-till system, an agroecologist could ask the following: Can the farm minimize environmental impacts and increase its level of sustainability; for instance by efficiently increasing the productivity of the crops to minimize land use? Does this way of farming sustain good quality of life for the farmers, their families, rural labor and rural communities involved? King released Farmers of Forty Centuries. King was one of the pioneers as a proponent of more quantitative methods for characterization of water relations and physical properties of soils. The early ecology school of Henry Gleason investigated plant populations focusing in the hierarchical levels of the organism under study. However, the ecological schools where the roots of agroecology lie are even broader in nature. The ecology school of Tansley , whose view included both the biotic organism and their environment, is the one from which the concept of agroecosystems emerged in with Harper. Even though, in many ways the environmental movement in the US was a product of the times, the Green Decade,[clarification needed] spread an environmental

awareness of the unintended consequences of changing ecological processes. Works such as Silent Spring , and The Limits to Growth , and changes in legislation such as the Clean Air Act , Clean Water Act , and the National Environmental Policy Act caused the public to be aware of societal growth patterns, agricultural production, and the overall capacity of the system. The author argues that the socio-economic context cannot be separated from the agricultural systems when designing agricultural practices. For instance in the same year, Miguel Altieri integrated how consolidation of the farms, and cropping systems impact pest populations. In addition, Gliessman highlighted that socio-economic, technological, and ecological components give rise to producer choices of food production systems.

DOWNLOAD PDF AGRICULTURE AND FOOD (COLLINS A LEVEL GEOGRAPHY)

Chapter 5 : Agricultural systems

Enter your mobile number or email address below and we'll send you a link to download the free Kindle App. Then you can start reading Kindle books on your smartphone, tablet, or computer - no Kindle device required.

Physical factors Human factors Temperature - this is critical for plant growth as all crops have a minimum temperature in which they will grow and a minimum growing season. This ties in closely with growing season, the amount of time between the last frost of spring and the first in autumn. Within the Tropics there is an almost continuous growing season, and the length diminishes as you move North and South in Latitude. Trees and fruits require greater amounts. Rainfall variability - when rainfall comes is another critical factor in determining the types of crops grown. The Mediterranean has a huge summer drought which can limit growth, but reasonable yearly totals of precipitation. The type of precipitation is important - snow an hail can actually damage crops. In South East Asia Terracing has been used to overcome this problem where population densities are high and pressure on lowlands is high. Wind - Strong winds can damage plants and increase evapotranspiration rates. The Mistral brings cold winds to the South of France which can affect the Mediterranean crops which grow there. Soils - farming depends upon the depth, stoniness, texture, water retention capacity, pH and mineral content of soils. Capital - Money to rent or buy materials and machinery can have a massive impact upon farming systems. Land tenure - who owns the land is a critical factor in what is grown and why. In Communist China in farming was run along the lines of Peoples communes, where a whole community farmed the land collectively and shared the produce. This changed to household responsibility in where families run farms along private means as businesses. This has led to increases in productivity and standards of living. Inheritance laws - who inherits land once a landowner dies is a critical factor affecting farming. In many countries land is passed on to several siblings and this leads to the fragmentation of land into smaller, less efficient and less profitable plots. Farm size - This is critical, as larger farms tend to be more efficient as they can take advantage of economies of scale. In MEDCs large commercial farms are run along these lines. Technology - investment in technology can make different forms of crop or pastoral farming possible in areas where they previously were not. The Green Revolution has transformed agriculture in certain parts of the world and is tied in with technological innovation. State influence - can control prices e. The CAP These factors are also affected by varying levels of state interference, they role of the market and demand, and transport innovations. The processes that occur can have a huge influence on the productivity of the farming, and many of the processes can have feedback loops into the inputs that are either positive or negative. However, in intensive farming the use of pesticides can kill all pests which could negatively affect other parts of farm ecosystems. In richer nations this tends to be Capital Intensive, where huge amounts of money for resources and technology are put into the systems to maximise outputs. Extensive - This farming uses large areas of land with low inputs and outputs per unit area of land. Commercial - This type of farming is where produce is reared or grown for sale. This ranges from small family farms to huge TNC backed farming corporations. Subsistence - This is where the food grown is largely for the consumption by the people growing it, with little or no surplus for sale Arable - the growth of crops such as Barley, Wheat, Rice, cotton. Pastoral - The rearing of animals for their milk, eggs, skins, meat etc. Mixed - a combination of growing crops and keeping animals. Examples Research farming in India and the British isles to cover a range of different farming types. For each type complete a table found here and add its location to the base maps found below.

Chapter 6 : Home - A Level Geography

This text covers the following themes: types of agriculture;energy and nutrient flows, limits and efficiency; influence ofsoils, slop, altitude and.

DOWNLOAD PDF AGRICULTURE AND FOOD (COLLINS A LEVEL GEOGRAPHY)

Chapter 7 : Spatial Patterns of Food - The British Geographer

Pursuing for Agriculture And Food Collins A Level Geography Epub Download Do you really need this book of Agriculture And Food Collins A Level Geography Epub Download It takes me 66 hours just to snag the right download link, and another 6 hours to validate it.

Chapter 8 : Sam Hanes - Senator George J. Mitchell Center for Sustainability Solutions - University of Mair

ZIMSEC O Level Geography Notes:Agriculture: Introduction Agriculture is a primary activity in which man extracts food and industrial raw materials from nature on a production unit known as a farm. As a result, this industry or activity is called farming.

Chapter 9 : Used Landmark Geography â€“ Agriculture and Food (Collins A Level Geography) on OnBuy

Introduction by William G. Moseley (Macalester College), Associate Editor, Food Policy While a long standing feature of the discipline, the geography of food and agriculture has experienced a renaissance over the past years.