

Extreme Environments Case Studies

Topic	Case Study 1	Case Study 2	
Adaptations People Make To Extreme Environments	<p><u>Arid Environment – Fulani, Sahel</u></p> <p>Food Supplies and Farming:</p> <ul style="list-style-type: none"> Planting of crops in Zai pits (a hole with organic matter in it to absorb seasonal rain, covered with soil to prevent evaporation) which allow them to grow with controlled conditions They dig wells and boreholes to trap groundwater <p>Building Design</p> <ul style="list-style-type: none"> Flat roofs to collect water Thick walls and small windows to keep heat out Walls are painted white to reflect sunlight and keep buildings cool <p>Body shapes and clothing</p> <ul style="list-style-type: none"> Many indigenous people are tall and slender which is an advantage in terms of losing body heat Wear loose-fitting clothes to keep cool as well as head coverings <p>Transport</p> <ul style="list-style-type: none"> They use camels which can cope with the harsh climate and carry weight for nomadic lifestyle Travel is often at night when it is cooler 	<p><u>Polar Environments – Inuit</u></p> <p>Food Supplies:</p> <ul style="list-style-type: none"> Seasonal hunting is done with food being frozen or salted They have adapted to diets based on protein and fat <p>Building Design:</p> <ul style="list-style-type: none"> Pitched roofs to allow snow to slide off Modern buildings are triple glazed Buildings face the sun Built on stilts to avoid problems caused by melting permafrost <p>Body Shapes and clothing:</p> <ul style="list-style-type: none"> Inuit people are generally short and stocky which helps in terms of conserving body heat Clothing is multi-layered and use local skins and furs Modern ‘engineered’ fabrics have been developed <p>Transport:</p> <ul style="list-style-type: none"> Roads built on gravel pads to stop the permafrost melting Most travel is in winter when the ground is frozen 	
Local Action in Achieving Sustainability	<p><u>Diguettes, Burkina Fasso</u></p> <ul style="list-style-type: none"> Introduced in the 1980s by Oxfam as part of a charity programme They are a line of stones, laid by the farmland which slow the flow of rainwater, allowing it to soak into the ground They also trap soil during periods of rain preventing soil erosion Their ability to improve crop yields mean that 400 villages in Burkina Fasso use diguettes 	<p><u>Iceland</u></p> <ul style="list-style-type: none"> Iceland is located along the mid-Atlantic ridge, a zone of volcanic activity The magma beneath Iceland produces heated and pressurised groundwater which forms steam Turbines use the steam to generate electricity and the hot water can be used to heat buildings The renewable energy can be used to heat and light greenhouses 	
Global Action to protect Extreme Environments from Climate Change	<p><u>Kyoto Summit, 1997</u></p> <ul style="list-style-type: none"> Commitment to reduce emissions by around 5% by 2012 US didn’t sign up, and China wasn’t assigned targets, wiping out all other reductions made by other countries 	<p><u>Artic Council, 1996</u></p> <ul style="list-style-type: none"> Intergovernmental group made up of the 8 Arctic nations (including Canada, Denmark, Greenland and the USA) Only managed to put forward non-binding recommendations with no enforcement 	<p><u>United Nations Convention to Combat Desertification</u></p> <ul style="list-style-type: none"> Aimed to raise the issue of desertification and help countries suffering from it Funds research Has had little success so far