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Key skills communication Level 3 – World Hunger

Tuesday 19th September 2006

Source Booklet

- This booklet contains source material for the level 3 communication test, **World Hunger**
 - The test questions will be based on this material
 - You must hand in this source booklet at the end of the test, along with your question paper and answer booklet
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The level 3 communication test will assess your ability to:

- select and read material to obtain the required information
- identify accurately, and compare, the lines of reasoning and main points from the text and images
- synthesise the key information in a way that is relevant to the purpose
- select and use a format and style of writing that is appropriate to the purpose and subject matter
- organise relevant information clearly and coherently
- ensure text is legible and spelling, grammar and punctuation are accurate

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World Hunger

We have all seen television pictures of starving children. The task of feeding the world's hungry people can seem overwhelming and sometimes we might wonder why there is so much hunger in the world today. The answer could possibly be broken down into a number of main areas.

One major reason for hunger is poverty. The poor are often hungry, and the hungry are usually poor. In wealthy countries we talk about our quality of life or our standard of living but in poorer countries the focus shifts to the mere sustaining of life. A major problem in Third World countries is the lack of capital investment. There is very little money that can be spent on agricultural development or even basics like seed and farm tools. Without the money to buy the means to grow food, people living in poverty end up being hungry.

The culture of poverty tends to prevent people who come from an impoverished situation from having the means by which to better themselves. People do not get the calories and nutrition necessary for good health, so they are caught in the web of poverty and disease. They cannot afford to pay for medicines they badly need to combat such illnesses as AIDS, dysentery and diarrhoea. Moreover, they are being raised in a culture of poverty that perpetuates dependence on aid and can discourage people from helping themselves.

A second important reason for hunger is population growth. In the twentieth century, nearly every country experienced a growth in population. The greatest impact has been on the world's poorest countries because many of them have seen a huge growth in population. In fact the population of the planet has grown extremely quickly in the last hundred years or so:

- in 1900 it reached 1 billion
- by 1950 this had grown to 2 billion (so it had doubled in just 50 years)
- by 1975 it was 4 billion people (so now the doubling time had decreased to just 25 years)
- by 2000 it had risen to over 6 billion.

It is thought that the number is likely to continue to increase still further, perhaps to as many as 10 or 11 billion people.

This growth puts an enormous strain on our ability to provide resources and services to a starving world. Imagine if your own city or town had its population double every 20 to 25 years. That would mean you would have to double the number of houses, double the number of shops, double the number of roads, schools, hospitals etc. Such growth would be a significant strain on the budget and resources of a wealthy, developed country. Imagine the strain this would put on a poor and undeveloped country. So the problem of world hunger is exacerbated by population growth.

Another reason for world hunger is priorities. Those of us who live in an industrialised society place a high priority on comfort and convenience. We think of things we would like to buy, rather than needing to buy the basics simply to keep us alive. Our standard of living places a significant strain on the world economy. In the wealthy, developed countries, we use a lot more resources to maintain our standard of living. Currently it costs 30 times as much in terms of energy and resources to feed someone in North America as it does to feed someone in Pakistan.

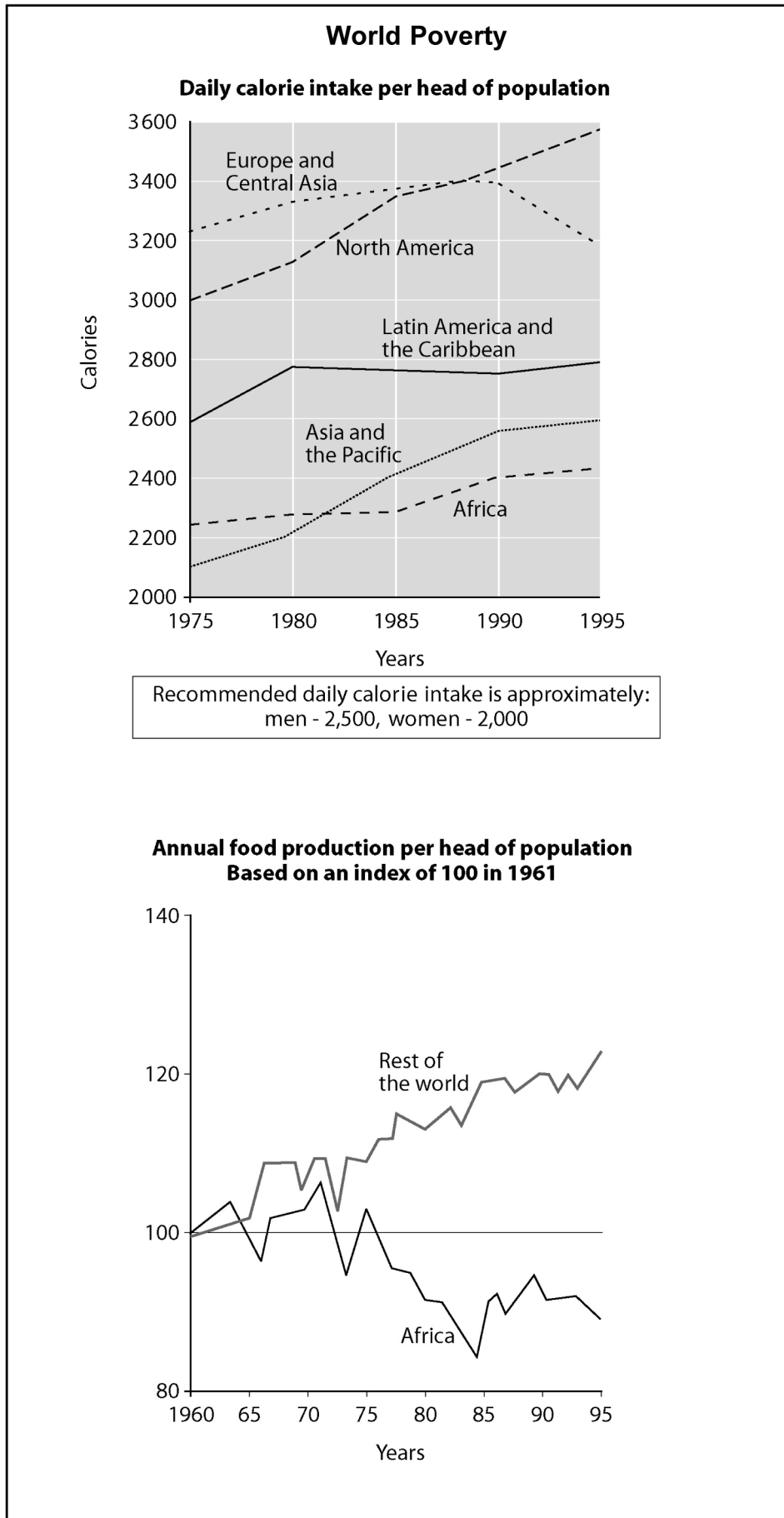
Part of the issue of priorities is the indifference of people in wealthy countries. The affluence of the West often keeps us from being concerned about those who do not have enough to eat. We have a great challenge before us. We must not only consider what we can do to feed the hungry, but we must also consider what we should do to limit our indulgent lifestyle.

Along with these well-known causes of hunger are a few less-publicised ones. One of these causes is governmental control. Hunger and poverty are often due to the very structure of governments. There has been a history of some African leaders being unelected or elected through corrupt means. Millions of pounds of aid have been wasted by such leaders on building palaces for themselves and corrupt leaders have often had no interest in improving the situation of their people. Civil wars in some African countries have also made it difficult and dangerous for foreign countries to give aid.

There is no one simple solution to the enormous problem of world hunger but each major problem area could be addressed by the world's wealthiest countries if they had the will to do so.

Source: original, 2005.

DOCUMENT 2



Source: Adapted from Le Monde Diplomatique, May 2000.

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Plant biotechnology is a vital tool to help feed Africa

Throughout southern Africa, 12 to 14 million people are struggling to survive through a two-year drought that has drastically cut agricultural production. In Zambia, boys dive in swamps in search of edible roots to eat. Throughout the region, starving people walk miles to wait for food aid that has been slow in coming.

The most recent drought has brought worldwide attention again to ongoing hunger problems in Africa. Malnutrition – the lack of sufficient calories and nutrients to lead healthy, productive lives – is widespread in Africa, even during times when growing conditions are better. The United Nations Food and Agriculture Organization (FAO) estimates that 40 to 50 per cent of the southern African population is malnourished every year and that the region is "worse off nutritionally today than it was 30 years ago." Today, cereal production in southern Africa is actually 19 per cent lower on a per capita (ie per head of population) basis than it was in 1970, according to the FAO.

Just look to India to understand how poorly Africa has fared. Thirty years ago, India was struggling to provide enough food for its large and rapidly growing population. Fast forward to November 5, 2002. On that day, India became the largest single donor in the history of the UN World Food Program – 1 million metric tons of wheat. That level of production in India and many other regions of the world resulted from three decades of scientific improvements in agriculture. Dubbed the Green Revolution, the period from 1960 to the 1990s saw tremendous yield growth as a result of improved crop varieties and irrigation. During that period, global cereal production doubled, per capita calories available per day climbed 35 per cent, and real food prices dropped by half.

Many believe that what the Green Revolution did for India and for Asia, plant biotechnology could help do for Africa.

Global challenges

As remarkable as the gains made possible by the Green Revolution were, they largely by-passed southern Africa – primarily because the region is too dry for the Green Revolution's high-yielding varieties of wheat, corn and rice, which thrived in the irrigated plots in the tropics. Although corn is an important crop in Africa, the Green Revolution did not focus on yams, cassava, sorghum and cowpeas – Africa's other staple crops. Maize yields over the past 30 years are another illustration of how far Africa has fallen behind the agricultural productivity gains of the rest of the world.

While critics of high-yield agriculture and plant biotechnology say the world already produces more than enough food for everyone and that distribution is the biggest problem, agricultural experts say that generalization overlooks important facts. One-fifth of the world's people at the very bottom of the economic ladder produce about 97 per cent of their food supply locally. That's why it's important that these farmers have the tools to boost agricultural productivity. Projections indicate that these farmers' ability to grow more food will be severely tested in the next 20 years. According to UN estimates, the gap between production and demand for cereals in sub-Saharan Africa is forecast to leap from 9 million metric tons in 1990 to 27 million

metric tons in 2020. The gap between production and need in these grain-short regions will be even greater unless poverty can be significantly reduced.

A new green revolution

Ploughing up yet more wilderness, cutting down forests, or increasing the area of land under agriculture are no longer viable options to solve population food problems. To conserve the present ecosystems, increased food production must be limited to the cropland currently in use.

Technological improvements during the Green Revolution helped stave off mass starvation with relatively small increases in cropland. For instance, if food productivity in India had been kept at 1951 levels, the country's entire landmass would not have been big enough to produce the amount of food India did in 1998. Instead, technological improvements of the Green Revolution enabled India to increase its conservation efforts and actually expand its forests and woodlands by 21 per cent between 1963 and 1999. More such productivity-enhancing technological progress, including the use of chemical fertilisers and pesticides, must be part of the solution to help feed more people in the future.

The UN Development Program reported in 2001 that genetically enhanced crops could be the "breakthrough technology" for developing countries and called on governments to develop policies that ensure adequate investment in biotechnology and the issues associated with it. Unless we are ready to accept starvation, or place parks and the Amazon basin under the plough, there really is only one good alternative: discover ways to increase food production from existing resources.

Benefits for the developing world

An extension of traditional plant breeding, plant biotechnology uses genetic knowledge and scientific techniques to add specific traits to crops, such as an ability to fend off pests, survive droughts and delay ripening. These traits benefit farmers, including those in developing countries where crop losses due to weeds, pests and diseases are high and conventional tools to ward off those problems are unavailable or unaffordable. Biotechnology is a science that has more to offer to the developing world than the developed world.

While it's true that some African leaders are sceptical of adopting the use of biotech seeds in the belief it could jeopardise agricultural exports to the European Union, some farmers are eager to adopt the new technology. A few have already started. One is South African cotton farmer T.J. Buthelezi, who says the yields for the first crop of biotech cotton were four times that of the conventional varieties he planted. "For the first time I'm making money," he said. "I can pay my debts."

Source: Adapted from *Plant Biotechnology in Africa*, Council for Biotechnology Information, June 2004.

World hunger needs a simple solution rather than hi-tech GM food

A member of the government's Genetically Modified (GM) food review panel resigned because of its "naive" and unbalanced approach. Another formally complained that he was threatened with the loss of research funding if he was critical of GM technology. David King, chairman of the panel and chief government scientific adviser, used the experience of the US to reassure the public. GM food has been eaten there since around 1996 with no obvious adverse effects. But absence of the **evidence** of harm does not mean that harm is not being done.

What emerges is a bias in the scientific community towards invasive, hi-tech solutions to complex social, environmental and economic problems, regardless of whether or not they are best – or even appropriate.

Why, after all, do we need GM crops? Even if the world was short of food, which it is not, available evidence suggests that using what is called, "sustainable agriculture" – a mixture of environmental and pro-poor approaches to growing food – brings massively higher increases in overall productivity than anything achieved through genetic modification.

Consumers and supermarkets do not want them. Only a hard core of biotech businesses, researchers and their political allies are bothered. Floundering for winning arguments, they've settled on a kind of moral blackmail. We should commercially introduce GM crops, they say, because we need to feed the poor.

When this argument was first used aggressively by Monsanto in the late 1990s, the poor had other ideas. African delegates at special negotiations of the UN Food and Agriculture Organisation strongly objected that "the image of the poor and hungry from our countries is being used by giant multinational corporations to push a technology that is neither safe, environmentally friendly, nor economically beneficial to us".

They were convinced that the "feed the world" argument was a huge red herring. Since then, the GM lobbyists just shout louder. George Bush accused the European Union of starving hungry people because of its caution over GM crops.

Why are they so wrong? The arguments need repetition. People go hungry because they're either poor, powerless, both, or have no land to grow food on. GM crops don't change this. Britain's experience has been enormously problematic. The poor have no chance to regulate, monitor or segregate GM crops.

Almost everything scientists are trying to achieve by genetically modifying crops can be achieved in other, less risky, ways. Whether the problem is pest or weed control, drought tolerance, yield or nutrition, there are countless, though poorly supported, farming methods that can be used instead of genetic tricks. GM advocates seem only to have discovered an interest in getting rid of poverty now that they have something to sell.

Source: Adapted from *The Guardian*, 4 August 2003.