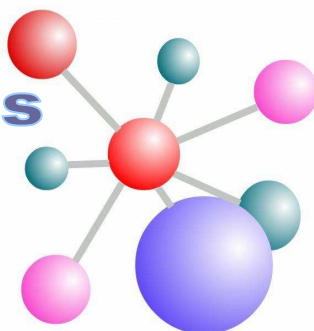


**Inglês**



**Ciências Agrárias**

## Instruções

- |           |  |
|-----------|--|
| <b>1</b>  | Confira se os dados contidos na parte inferior desta capa estão corretos e, em seguida, assine no espaço reservado para isso.<br>Se, em qualquer outro local deste Caderno, você assinar, rubricar, escrever mensagem, etc., será excluído do Exame. |
| <b>2</b>  | Este Caderno contém 05 questões discursivas referentes à Prova da Língua Estrangeira escolhida pelo candidato. Não destaque nenhuma folha.   |
| <b>3</b>  | Se o Caderno estiver incompleto ou contiver imperfeição gráfica que impeça a leitura, solicite imediatamente ao Fiscal que o substitua.  |
| <b>4</b>  | Será avaliado apenas o que estiver escrito no espaço reservado para cada resposta, razão por que os rascunhos não serão considerados.  |
| <b>5</b>  | Escreva de modo legível, pois dúvida gerada por grafia, sinal ou rasura implicará redução de pontos.   |
| <b>6</b>  | Só será permitido o uso de dicionário INGLÊS/INGLÊS.   |
| <b>7</b>  | Use exclusivamente caneta esferográfica, confeccionada em material transparente, de tinta preta ou azul. Em nenhuma hipótese se avaliará resposta escrita com grafite.   |
| <b>8</b>  | Utilize para rascunhos o verso de cada página deste Caderno.   |
| <b>9</b>  | Você dispõe de, no máximo, três horas, para responder as 5 questões que constituem a Prova.  |
| <b>10</b> | Antes de retirar-se definitivamente da sala, devolva ao Fiscal este Caderno.   |

Assinatura do Candidato: \_\_\_\_\_

As questões de 01 a 05, cujas respostas deverão ser redigidas EM PORTUGUÊS, referem-se ao texto abaixo.

### Assessing future prospects of the agriculture sector using an integrated approach

*Andrea M. Bassi, Hans R. Herren, Zhuohua Tan and Brendan Saslow*

#### INTRODUCTION

Population growth, the state of natural resources and climate change are projected to become increasingly important in the agricultural context (IAASTD, 2009; FAO, 2009a). Solutions have to be found to increase the world's food production with respect to equity in the developing world, reduce deforestation and curb the negative effects of global warming on the environment to, among others, sustain crop yield. More details on these interconnected challenges follow.

Ehrlich forecasted the first population bomb within two decades of his article back in 1968 (Ehrlich, 1968), now Goldstone is warning that a new boom in the developing world will strike by 2050 (Goldstone, 2010). The UN Population Statistics Division forecasts the total number of earth's inhabitants to increase, according to medium projections, by 2.4 billion (Bn) people, reaching 9 Bn people in 2050 (UNPD, 2009). Such a projection may not appear very large, but does when considering that this increase is more than twice the size of India's population, and falls just 200 million short of doubling China's. A regional analysis demonstrates Goldstone's argument most dramatically. In fact, the sub-Saharan population is predicted to nearly double, from 1.01 to 1.99 billion people, jumping from 14.8% of world's population to 21.8% (UNPD, 2009). This increase alone demonstrates potential problems of a continent where starvation is already a global concern and 30% of sub-Saharan Africans are undernourished (BWI, 2010). According to the 2008 World Development Report most developing countries depend on agriculture as their main economic sector. Agriculture provides 1.3 billion jobs worldwide, and 97% of these workers live in the developing world (Hurst, 2006; WB, 2008).

Forests and the environment also are major concerns. Trees cover approximately one third of the earth's total land area but has been declining by 5 Mn ha per year in the past ten years (FAO, 2010a). The deforestation rate has decreased since 2000, but remains critically high (FAO, 2009b). Estimates project that global forest area (currently 4 Bn Ha (FAO, 2010b)) will continue to decrease in the next forty years (MEA, 2005). Several million hectares, an area larger than Mexico (194.4 Mn ha (FAO, 2009b)), is expected to be converted to land for agriculture, crippling beneficial stocks of biodiversity, impairing water and soil conservation efforts and complicating climate regulation (MEA, 2005). Forests are a vital source of carbon storage, aggregating 289 Gt in their biomass (FAO, 2010a). Poor forest management could reduce that stock (IPCC, 2007), depleting carbon reservoirs, aggravating the effects of global warming and ultimately expediting climate change.

On top of a growing population, particularly in developing regions, and declining availability of forestland to be converted into fertile agricultural land, climatologists forecast a temperature increase approximating 4o C, staying in the range of 1.7o C to 5.5o C temperature rise (see A1B and A2 scenarios from IPCC -IPCC (2007) AR4-) if no action to curb climate change is taken (IPCC, 2007). In such a scenario the negative impacts will be many and varied, including, according to the IPCC, consequences on water supply, food production, human health, availability of land, and ecosystems.

Disponível em: <http://resjournals.com/ARJ/Pdf/Jun/Bassi%20et%20al.pdf>. Acesso em: 28 set. 2011.

**Questão 1**

Quais soluções devem, segundo os autores, ser encontradas no contexto agrícola?

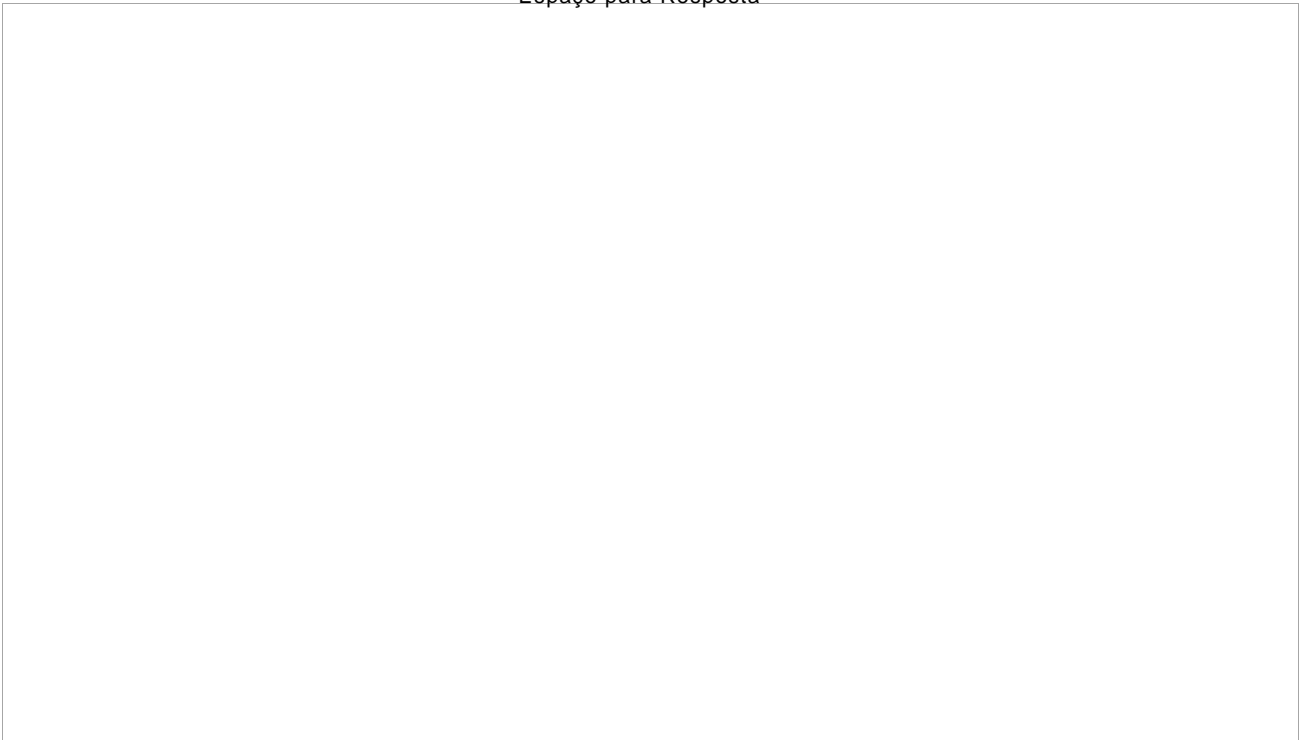
Espaço para Resposta



**Questão 2**

Descreva, de acordo com o texto, os três movimentos na aumento da população de acordo com Ehrlich, com Goldstone e com a Divisão de Estatística Populacional da ONU.


Espaço para Resposta



**Questão 3**

Qual é o papel da agricultura mencionado no texto de acordo com *World Development Report* de 2008?

Espaço para Resposta



**Questão 4**

Quais serão os impactos negativos, segundo os autores, do aumento da temperatura?

Espaço para Resposta

