*Mark scheme biological and non-biological threats to food security.*

*There is scope for discussion on almost all of these points eg whilst rising birth rate in some countries is a biological issue, the issues which make this a problem may in part be political and economic. Often there are no simple answers, factors are interconnected and seeing this in a systems approach is important in ensuring food security. The arrangement below is a starter for discussion. Students should be credited for giving their reasoning in choosing different places to put each of the factors.*

|  |  |
| --- | --- |
| Biological | Non-biological |
| Increasing birth rate has threatened food security in some countries. | Changing diets in developed countries means scarce food resources are transported around the world  |
| New pests and pathogens that affect farming | The cost of agricultural inputs such as fertiliser  |
| A decline in pollinator insects such as bees | Conflicts that have arisen in some parts of the world which affect the availability of water or food |
|  | Using land and crops to feed to animals bred for food |
|  | Poverty and inequality rather than shortages affect access to food |
|  | Climate change and its environmental changes that affect food production, such as widespread famine occurring in some countries if rains fail or crops are flooded. |
|  | Over consumption of food in developed countries |