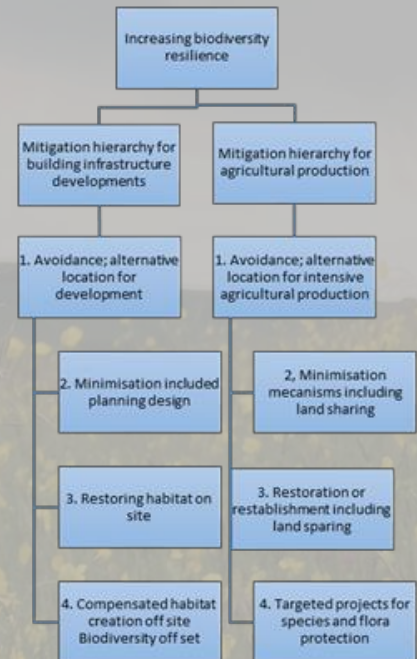


5. Offsetting land in the agricultural landscape to increase biodiversity resilience

- This report looks at the concept of biodiversity off-setting when applied to **building and infrastructure projects** and the biodiversity off-setting that can be achieved in conjunction with **agricultural production**. The avoidance and minimisation aspects in both landscape areas are examined, and where restoration and re-establishment of ecology is not possible the use of biodiversity offsets to improve natural ecosystem resilience are considered.



The **mechanisms** for implementing the individual parts of the hierarchies are explored; namely **land sharing, land sparing, voluntary measures, regulation and wildlife friendly farming practices**. Examples from the Allerton Project and Farm 4bio show how they can be practically implemented so that biodiversity decline can be not only halted but reversed.

How much land is required to make biodiversity both **sustainable and successful** within agri-environment schemes is also covered. Over a 5-year crop rotation, a Centre for Hydrology study (Pywell et al., 2015) found that there would be no adverse impact on overall yield in terms of monetary value or nutritional energy when up to 8% of land was removed from cropping.

The report concludes that biodiversity off-setting has a greater chance of success if it is **used in conjunction with other rural landscape management and mechanisms**; promoting best farming practices through Integrated Farm Management, and implementing simple but robust legislation with the appropriate amount of land out of production through our current agri-environment schemes.