

Farmland birds - an indicator that has worked to change policy

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Talk structure

1. Using indicators
2. Background: The plight of farmland birds
3. The opportunity
4. The UK wild bird indicator
5. The response
6. Closing remarks

1. Using indicators - in Economics

S&P

DJIA

NASDAQ

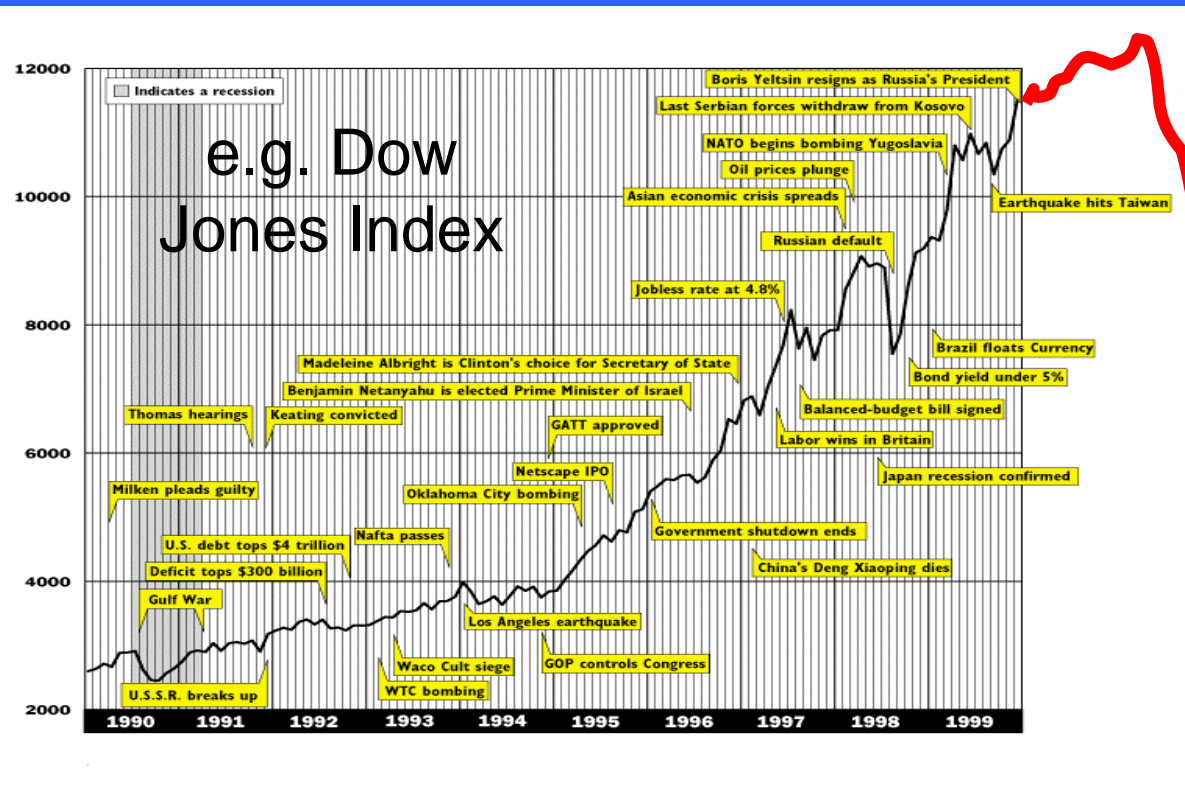
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What we need are similar high-level indicators for the environment

What do indicators do?

- They are meant to quantify and communicate complex phenomena in a simple manner
- Frequently used as a proxy for ecosystem function and health because of the complexity, cost and difficulty of measuring these processes directly
- Their purpose is to help decision makers formulate policies and to continue to review these policies in response to further changes in the indicator

Effective indicators need to be:

- Quantitative
- Simplifying
- User driven
- Policy relevant
- Scientifically credible
- Responsive to change
- Easily understood
- Realistic to collect
- Susceptible to analysis

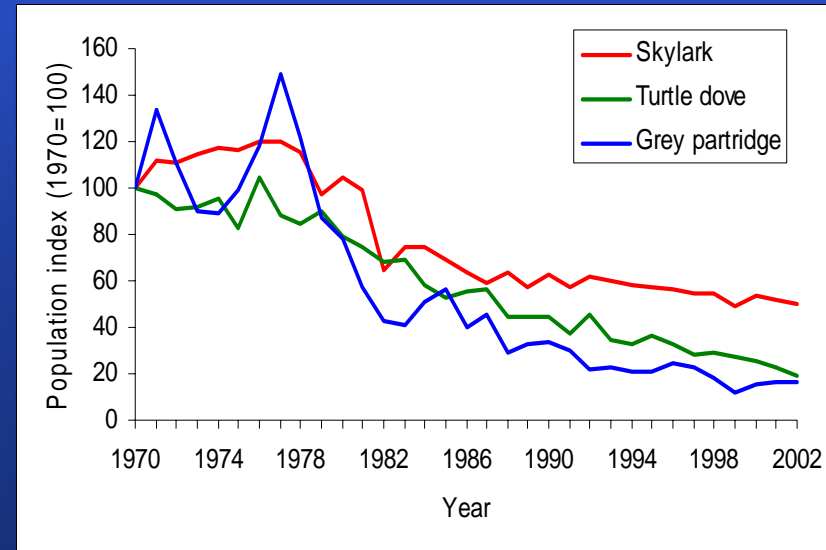
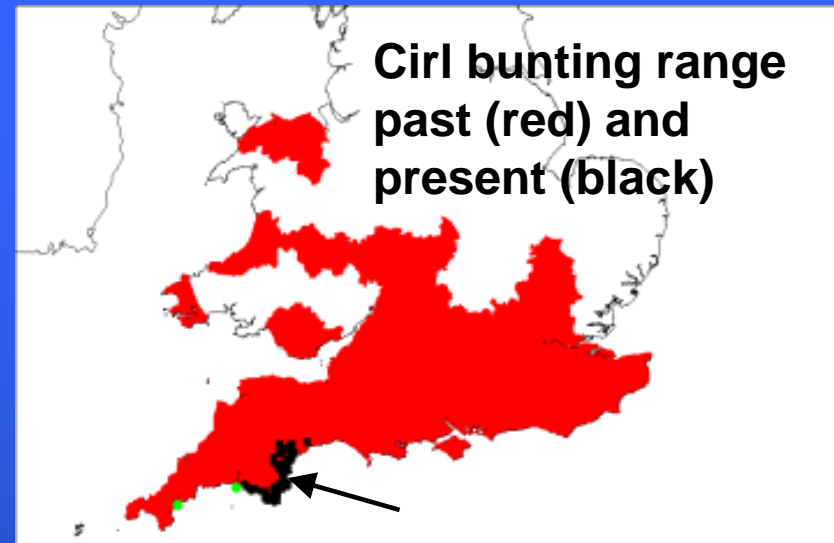


Basic questions for environmental indicators

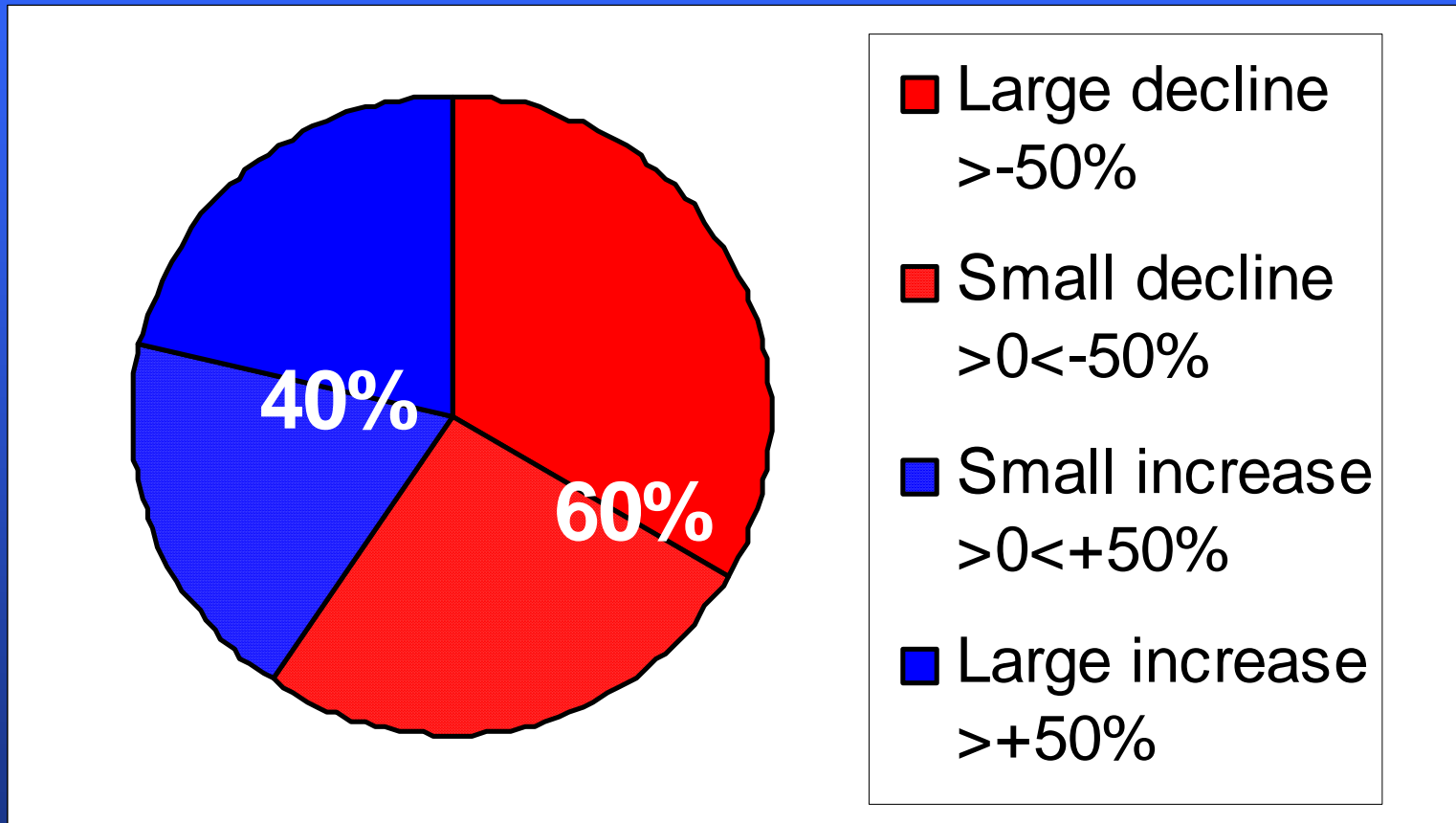
1. **Purpose** - What does the indicator aim to indicate?
2. **Fitness for purpose** - Does the sampling design & statistical method meet that purpose?
3. **Practicality** - Is it practical to generate & update the indicator?

2. Background: The plight of farmland birds

- Full scale of problems became apparent the 1990s
- What was striking was:
 - the level of decline (in range & numbers)
 - & the similarity in timing across species

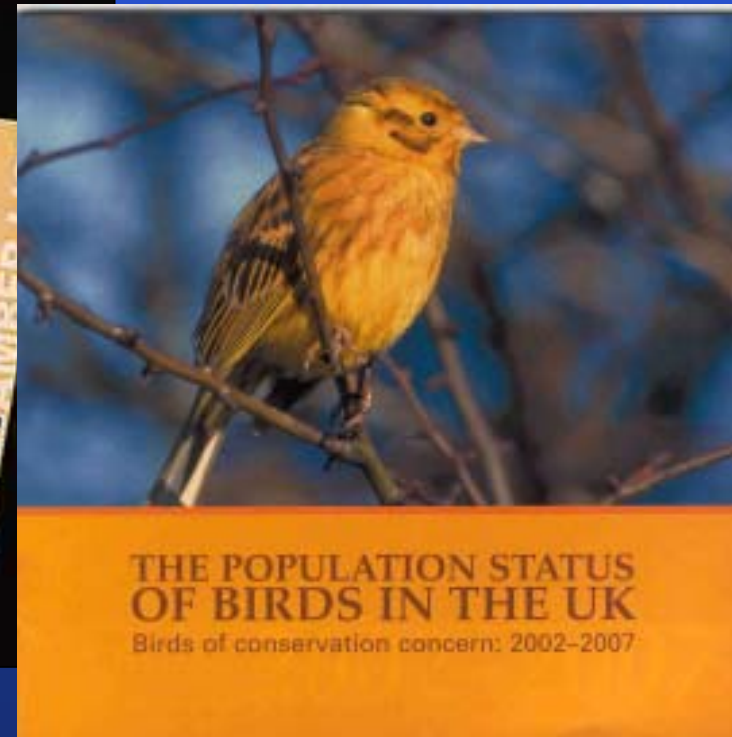


Long-term populations trends of farmland birds (n=42: ~1970-2002)



- Most species have declined – a third by greater than 50%

- Several 'common' but severely declining birds added to the Red List in 1996. Several more in 2002.
- Around a 1/3 of Red List birds are associated with farmland
- Concomitant declines of other animals and plants on lowland farmland



A photograph of a rural landscape featuring a large field of vibrant red poppies in the foreground and middle ground. The poppies are densely packed and stretch towards the horizon. In the background, there are rolling green hills, scattered trees, and a cloudy sky. The overall scene is a classic representation of a British countryside.

**The decline of once
common taxa on
lowland farmland has
emerged as one of *the*
issues in British
nature conservation**

**The driver of change is
known to be
agricultural
intensification and
specialisation**

A scenic landscape featuring a dense forest of tall, thin trees on a hillside under a clear blue sky. In the foreground, there is a body of water with a large patch of tall, golden-brown reeds or grasses. The overall scene is peaceful and natural.

3. The opportunity

Sustainability Counts: Consultation paper on a set of 'Headline Indicators of Sustainable Development' (1998)

A Better Quality of Life: A strategy for sustainable development in the UK (1999)

Economic growth

Health

Road traffic

Investment

Housing

River water quality

Poverty & social exclusion

Crime

Wildlife

Employment

Climate change

Land use

Education

Air quality

Waste

Wild birds chosen because they are:

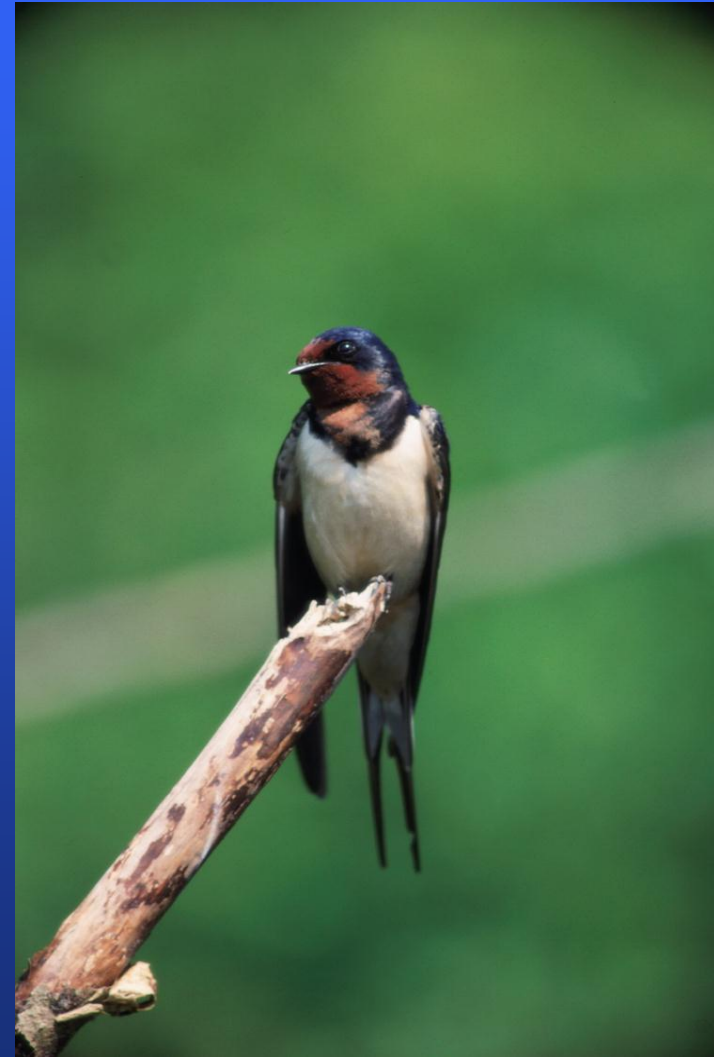
- Good indicators of healthy plant & invertebrate populations and thus of general environmental health
- Wide-ranging, abundant & often occur near the top of food chains
- Easy to detect, identify & count
- Knowledge of taxonomy, population biology & behaviour is excellent, as is the historical trend data
- Seen as a useful group to raise awareness of biodiversity issues
- **Resonant with the public & decision makers**

'H13' - The wild bird indicator

- Is one of the Government's 15 headline indicators of *Quality of Life*, representing wildlife. The key measures of progress towards sustainable development in the UK
- Part of a larger suite of 150 indicators of sustainable development
- Wild Bird Index first published in 1999 & updated annually

4. The UK Wild Bird Indicator

- Data on 230 breeding species over 30 years
- Create a species by year matrix of annual species indices
- Calculate an average trend (on a geometric scale)
- Present trends for species groups characteristic of habitat types (farmland & woodland birds)

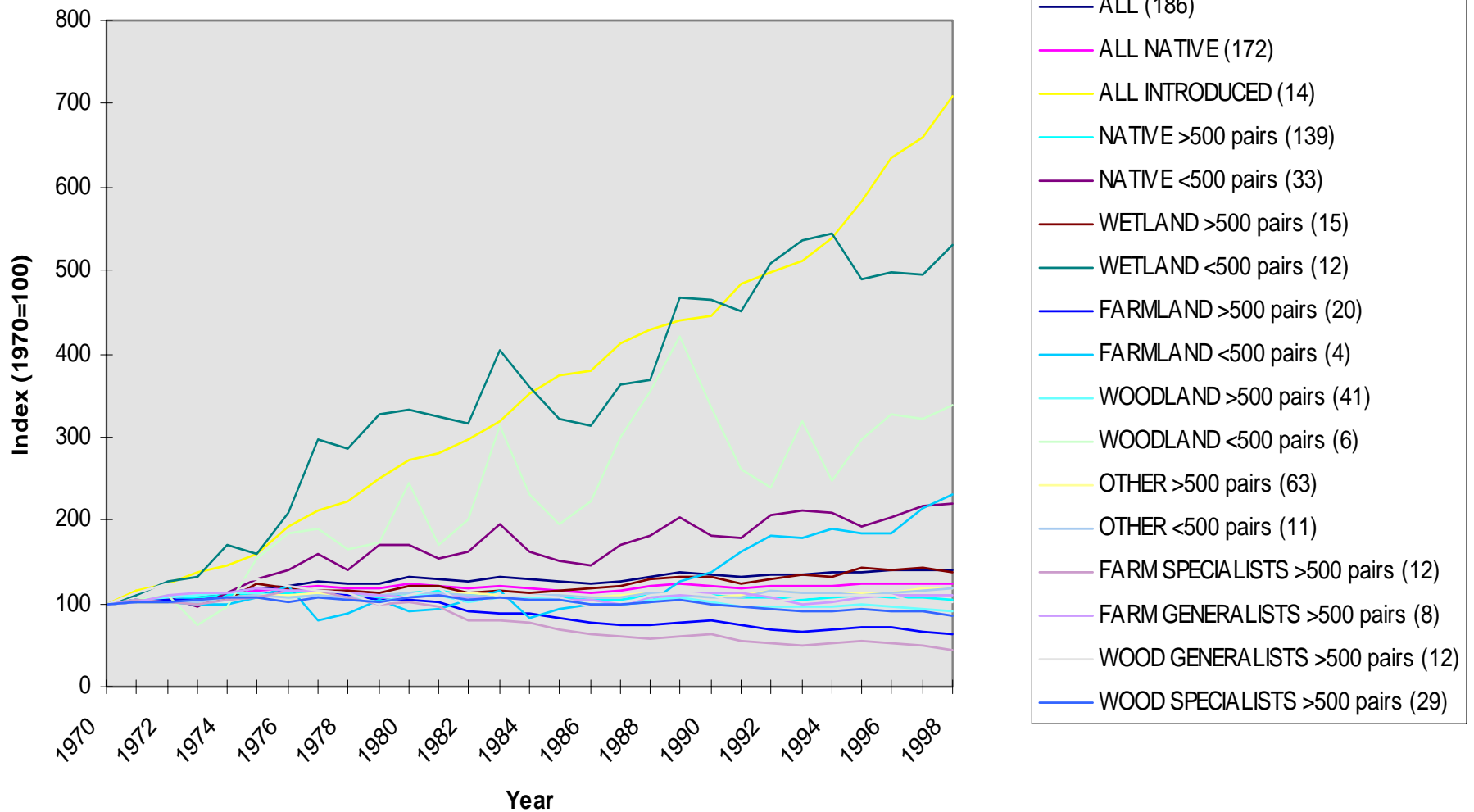


Sources of trend information

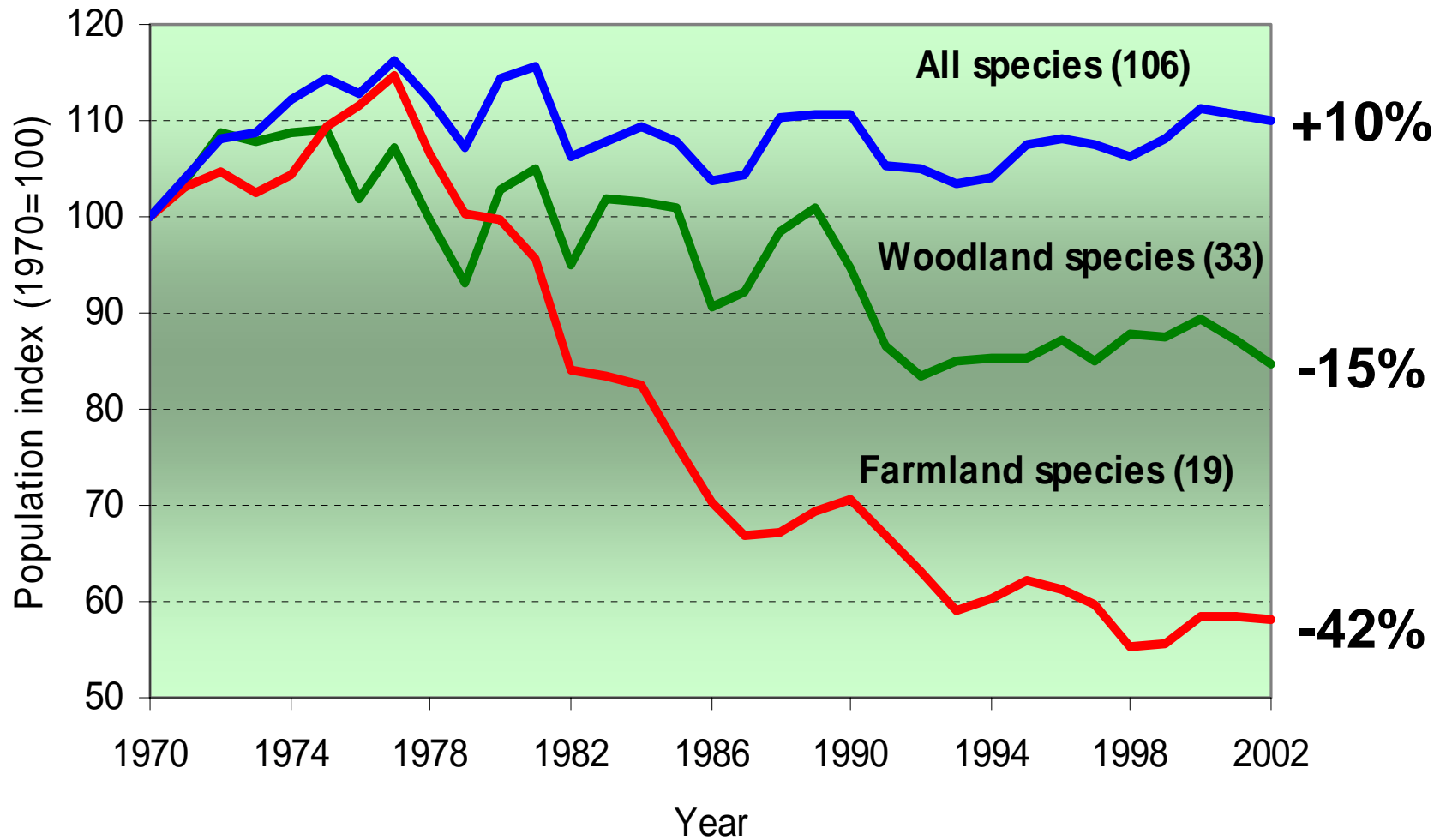


Data source	No. species
Common Birds	73
Census/Breeding Bird Survey	
Rare Breeding Birds Panel	55
Species-specific surveys	24
Seabird monitoring	18
Wetland Birds Survey	6
Game bags	1

Composite trends by species group



“Quality of Life Headline Wild Bird Indicator 2003”



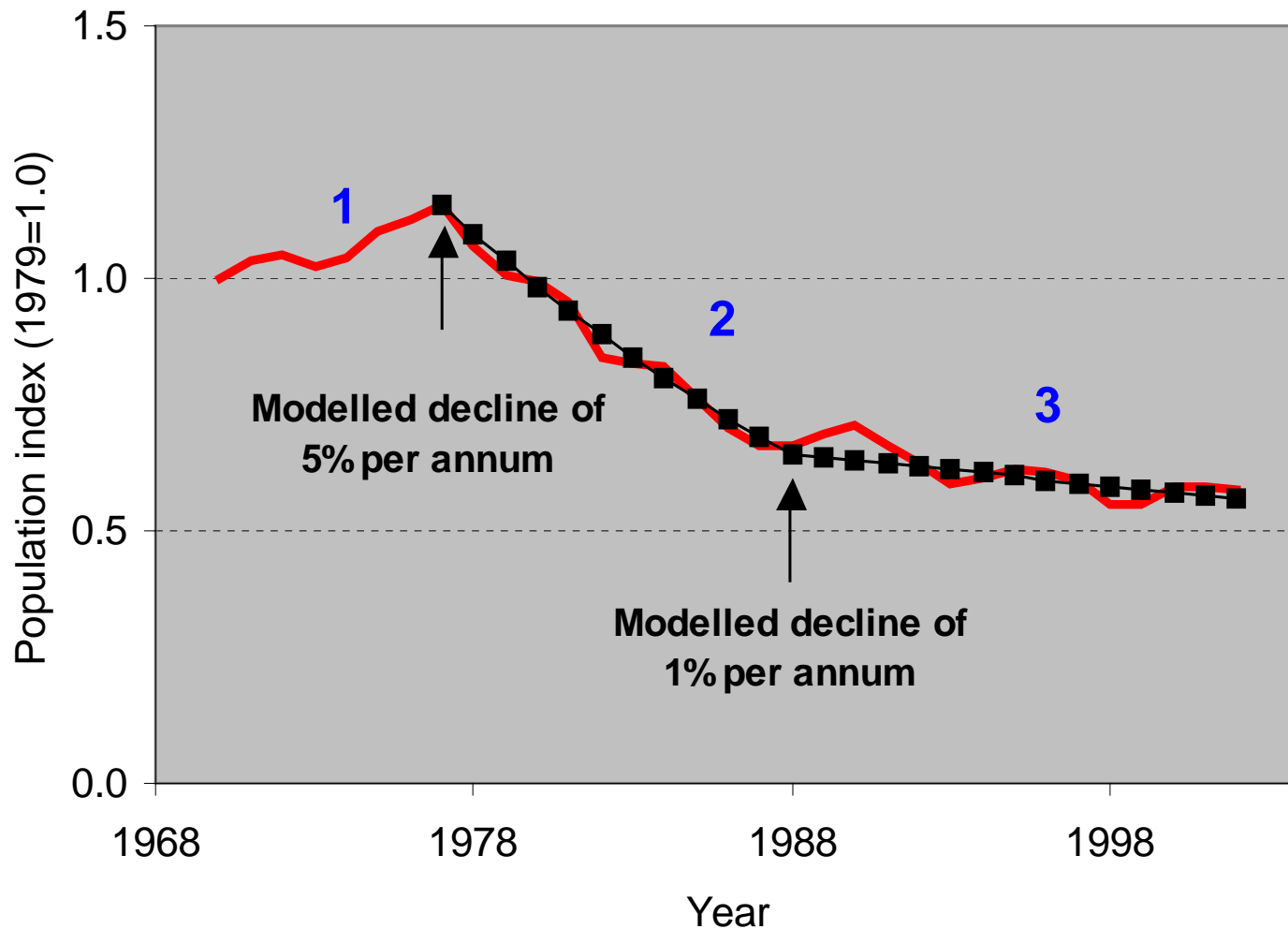
RSPB, BTO & Defra

Properties of the indicator:

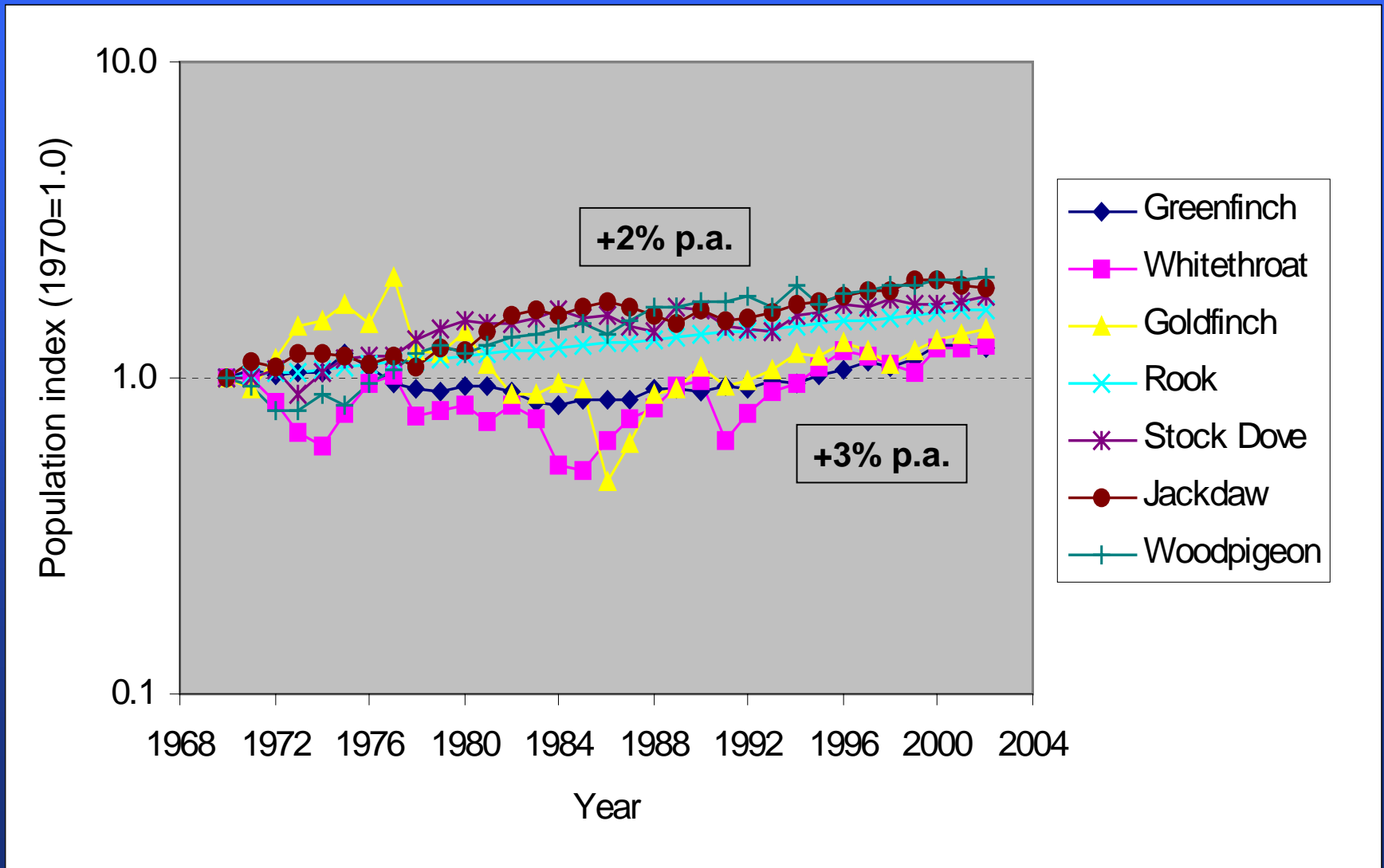
- Composite indicator - reflects the *average* behaviour of the species selected
- Species are weighted equally
 - not by population size
 - nor by conservation status
- Measures change in species composition
- Aims to act as a barometer of change in the wider countryside and as a surrogate of change in other wildlife



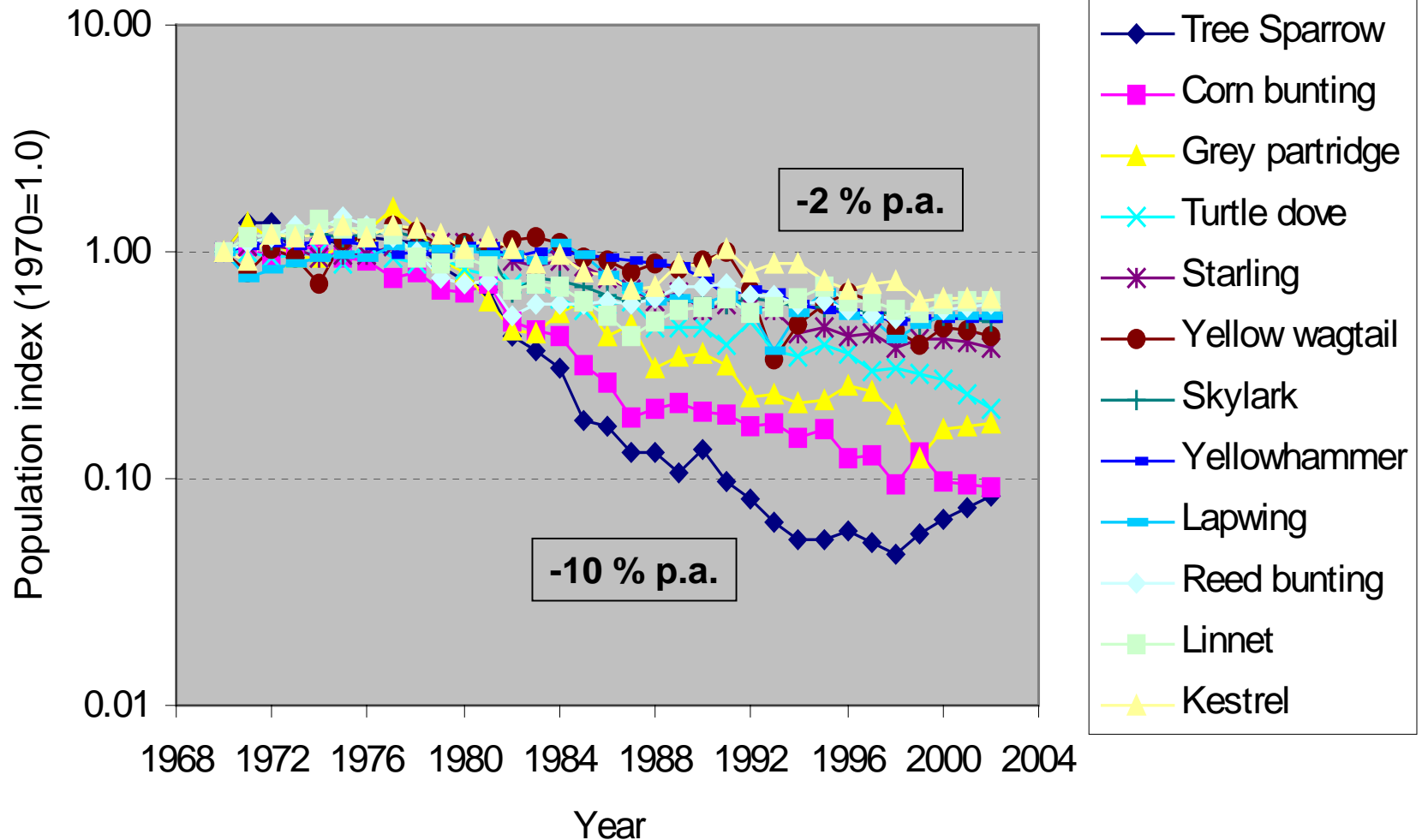
What is the trend in the farmland indicator?



Instructive to subdivide birds into the '7' increasing species:



...and the '12' declining species



5. The response

UK Government's Public Service Agreement (PSA):

“Care for our living heritage and preserve natural diversity by Reversing the long-term decline in the number of farmland birds by 2020, as measured annually against underlying trends”

PSA Delivery Plan (2002)

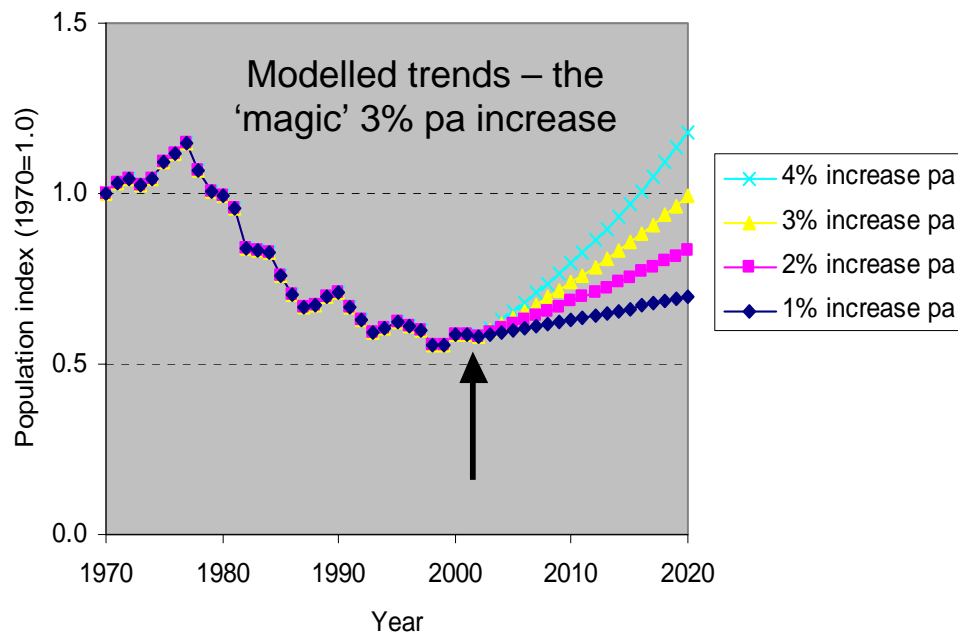
- Defines how the target is measured and how it is achieved
- Defines the timescale & stages of recovery
- Identifies the actions necessary & policy changes required to deliver the target
- **Government's vision is for each of the 20 farmland species to be stable in number or increasing....& to safeguard and sustain that achievement into the future**



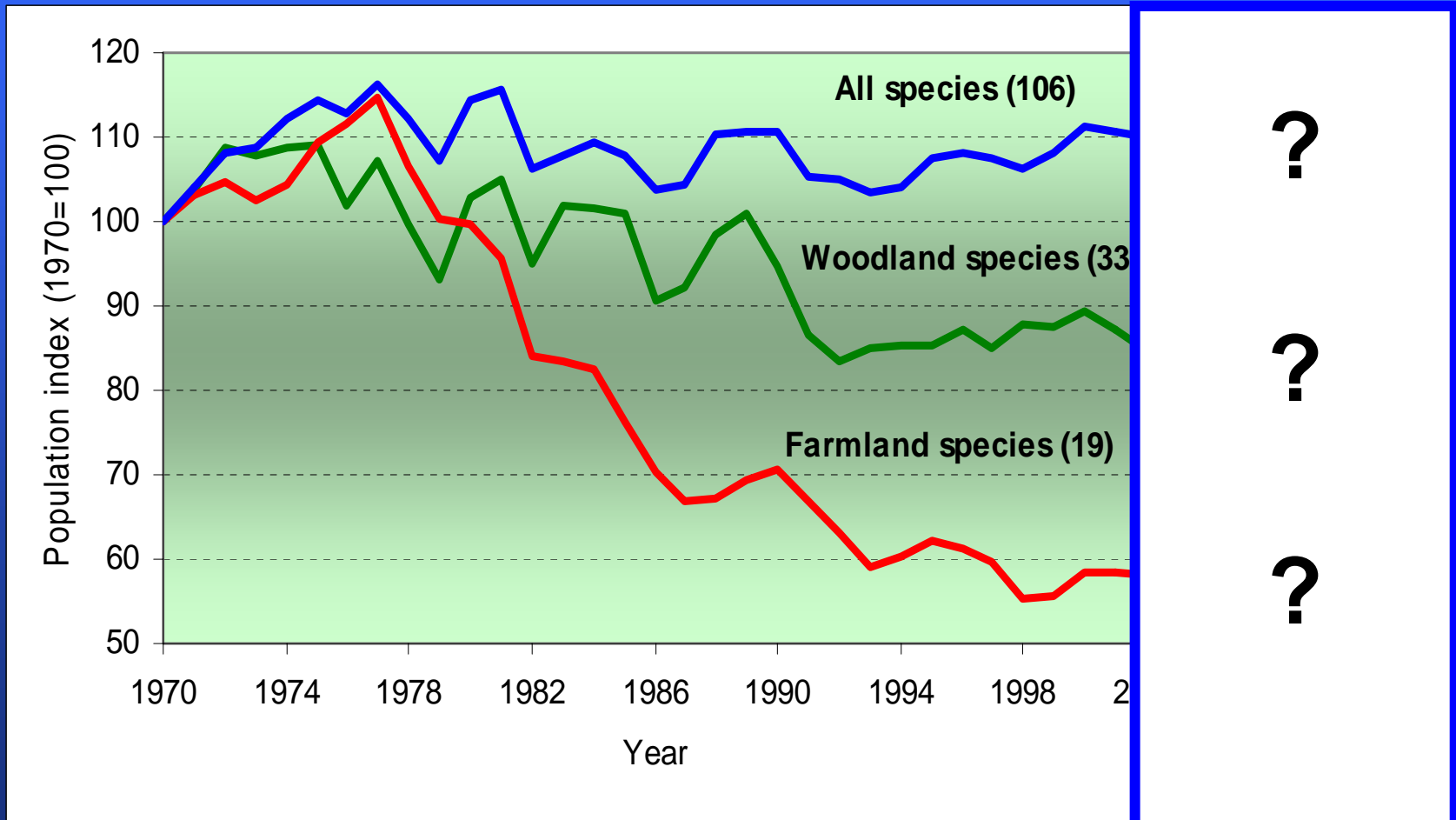
Policy mechanism: New Environmental Stewardship Scheme

- To be introduced in 2005
- Entry & Higher Level
- Entry Level, open to all farmers, will reward them for delivering wildlife habitats and for soil and water management. Take-up ~70-90% of farmers
- Higher Level will reward farmers for more advanced management delivering significant environmental benefits. Take-up ~10% of farmers
- Options include: hedgerow management, grass margins, wild bird cover, stubbles, summer fallow, under-sown crops, conservation headlands, skylark patches etc

What does the future hold? A series of positive & bold policy steps are in train.....



The next update of Wild Bird Indicator will be published on 21st October 2004



The green shoots of recovery?

Turning science into policy – or why the wild bird indicator works

- It has all the attributes of an effective indicator – **well conceived, robust, it communicates!**
- Its purpose is clearly defined
- Supported by a huge amount of high quality research on the species and ecosystems in question.
 - e.g. knowledge of the interaction between agriculture and birds is exceptional
- There is a detailed understanding of the behaviour of the indicator
- **There was a vision & clarity of purpose - it communicates!**

Acknowledgements

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