Reversing the detrimental impact of genetic selection on farm animal welfare

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Compassion in World Farming

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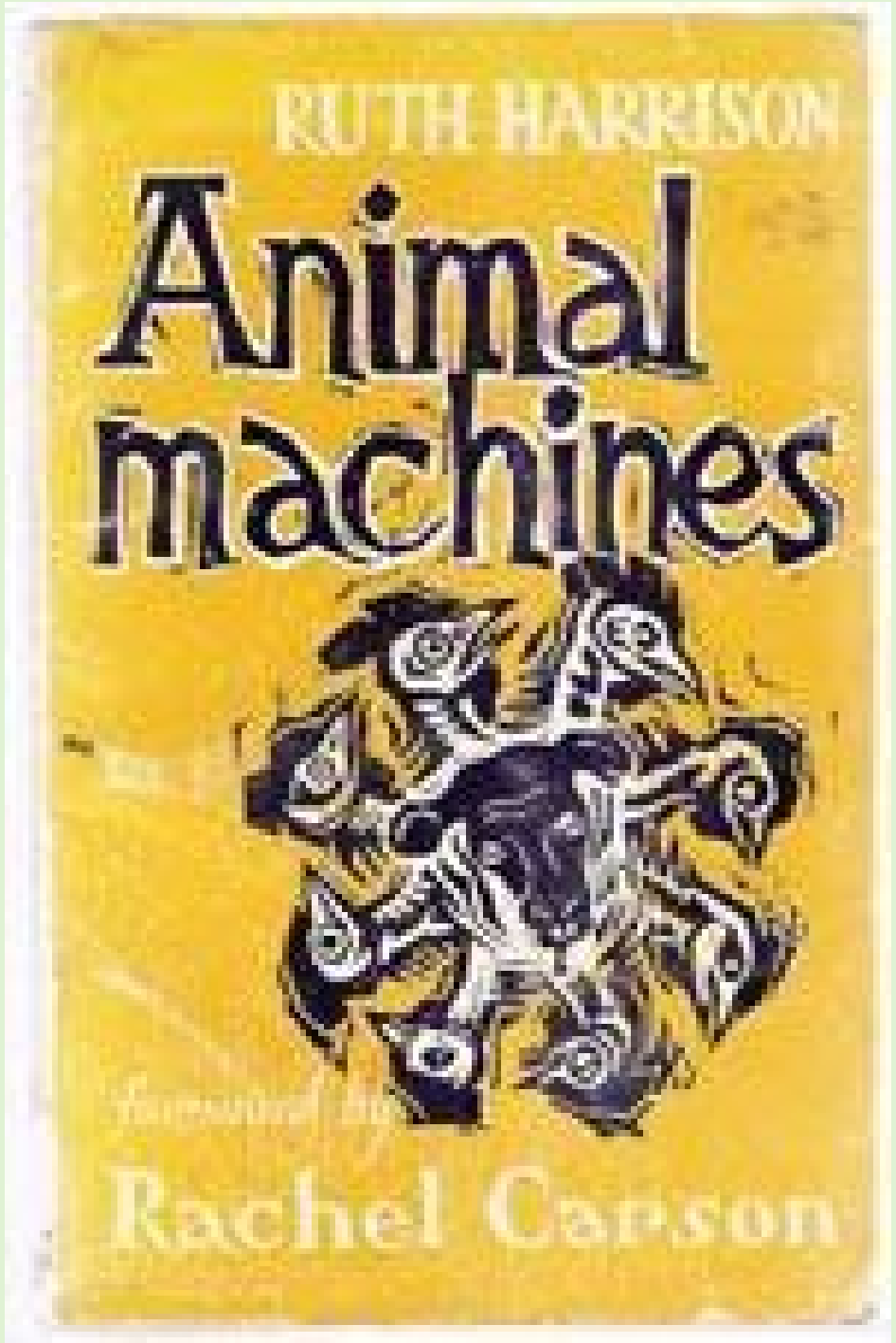

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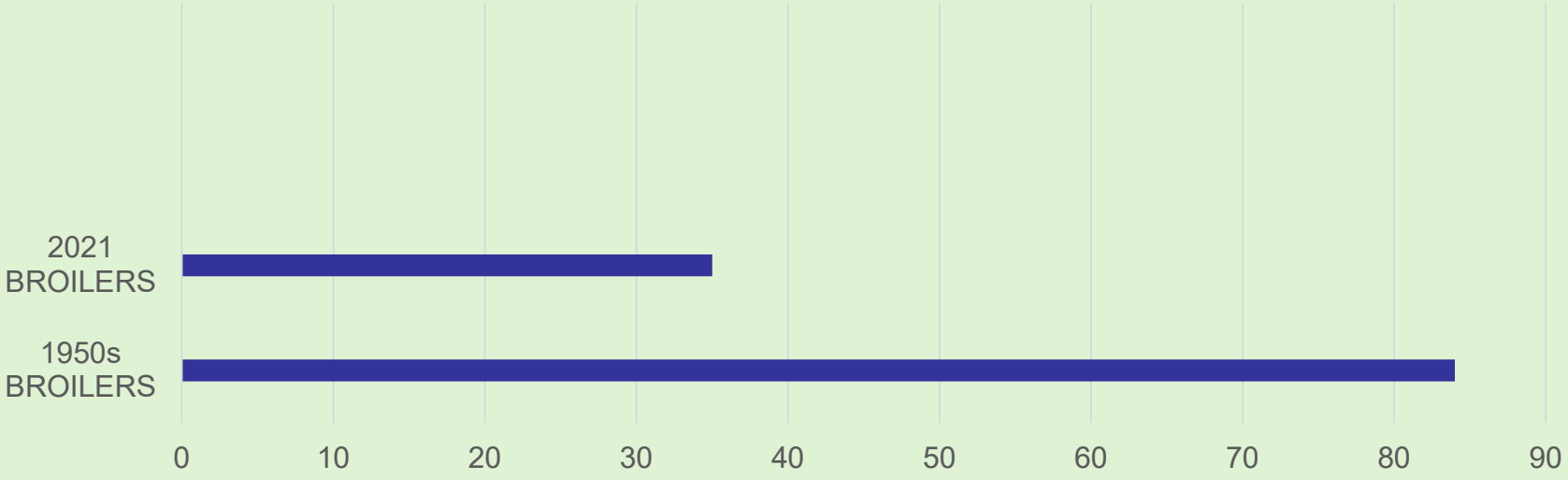
Broiler Growth Rates:
Days taken to reach slaughter weight of about 2kg



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“Dairy cows producing large quantities of milk have high levels of leg disorders, mastitis and reproductive disorders. The proportion of cows affected by one or more of these disorders is high and the animals live with the poor welfare for a substantial part of their lives”. Report for European Parliament by Prof Broom

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Very high yielding cows tend to be zero-grazed

EFSA: Cows should have access to well-managed pasture

EFSA: ‘Strengths of managing cows at pasture are the potential for good claw health and locomotion, good udder health, good fertility, improved comfort around resting, more natural behaviours and exposure to fresh air and sunlight’

The breeding sow should be thought of, and treated as, a valuable piece of machinery whose function is to pump out baby pigs like a sausage machine."

National Hog Farmer, 1978

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Production of large litters leads to increased competition for teats and so to injuries to the sow & litter-mates.

This results in use of teeth clipping to prevent injuries

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Methods used for dealing with surplus piglets when sow produces more piglets than she has teats to feed them with

- Artificial rearing systems
- Nurse sows
- EFSA: both ‘have negative implications for piglet and sow welfare’
- EFSA: ‘Artificial rearing should only be used as a last resort and not as a routine management practice’
- Nurse sows may spend over 40 days in a farrowing crate

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EU Directive 98/58 on the protection of animals kept for farming purposes

Para 21 of Annex

‘No animal shall be kept for farming purposes unless it can reasonably be expected, on the basis of its genotype or phenotype, that it can be kept without detrimental effect on its health or welfare.’

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Council of Europe Recommendations on all poultry species

- One approach could be that taken by the Council of Europe Recommendations on all poultry species.
- These provide: ‘birds whose genotype has been modified for production purposes shall not be kept under commercial farm conditions unless it has been demonstrated by scientific studies of animal welfare that the birds can be kept under such conditions without detriment to their health or welfare’.
- This requirement should be added to the Annex to Directive 98/58 - and should apply to both poultry & mammals.

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Specific maximum growth rates, yields and litter sizes are needed

Could be laid down by legislation or industry codes

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Broilers: Option 1

- Set a maximum genetic capacity for growth that is restricted to an average of a specified number of grams/bird/day
- EFSA Scientific Opinion, 2022: ‘Growth rate should be limited to a maximum of 50 g/day to allow the broilers to maintain better health and being active’

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Broilers: Option 2

- Follow approach of the *European Chicken Commitment* (ECC).This specifies the breeds that may be used and lays down the procedure that must be followed for adding new breeds to the list of permitted breeds.
- Adopt breeds that demonstrate higher welfare outcomes: either the following breeds, Hubbard Redbro (indoor only), Norfolk Black, JACY57, JA757, 787, 957, or 987, Rambler Ranger, Ranger Classic, and Ranger Gold, or others that meet the criteria of the RSPCA Broiler Breed Welfare Assessment Protocol

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Laying hens

- *Animal Welfare Approved by a Greener World* scheme recommends that breeds with a capacity for laying over 280 eggs in a laying cycle should not be used
- Or set a maximum weight of eggs that can be produced in a laying cycle
- Danish study - found that for every week of age that the onset of lay is delayed, the risk of developing keel bone fractures at the end of the production cycle is reduced by 12%
- Legislation could prohibit use of breeds in which the onset of lay is earlier than X weeks of age

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Dairy cows & pigs

- Could prohibit use of cows with potential to produce on average more than x thousand litres per lactation
- “Average number of piglets born alive in a given sow breed should not exceed, and preferably be lower than, the average number of functional teats in the population of this breed”: EFSA, 2022

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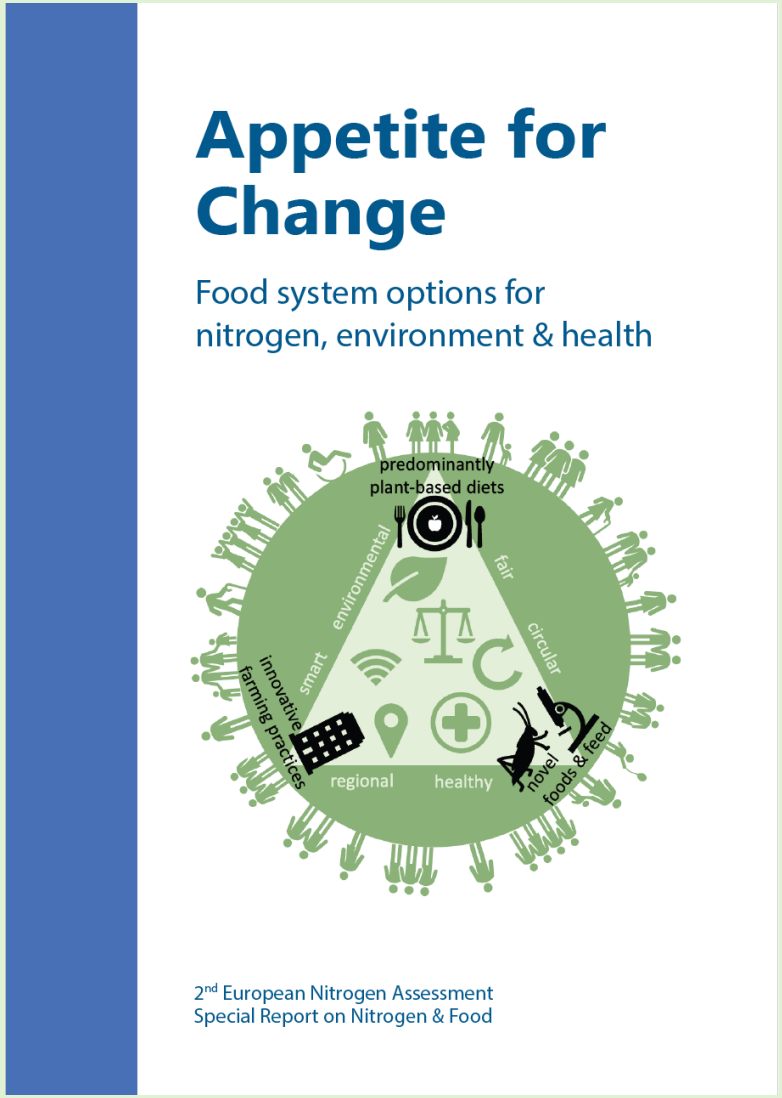
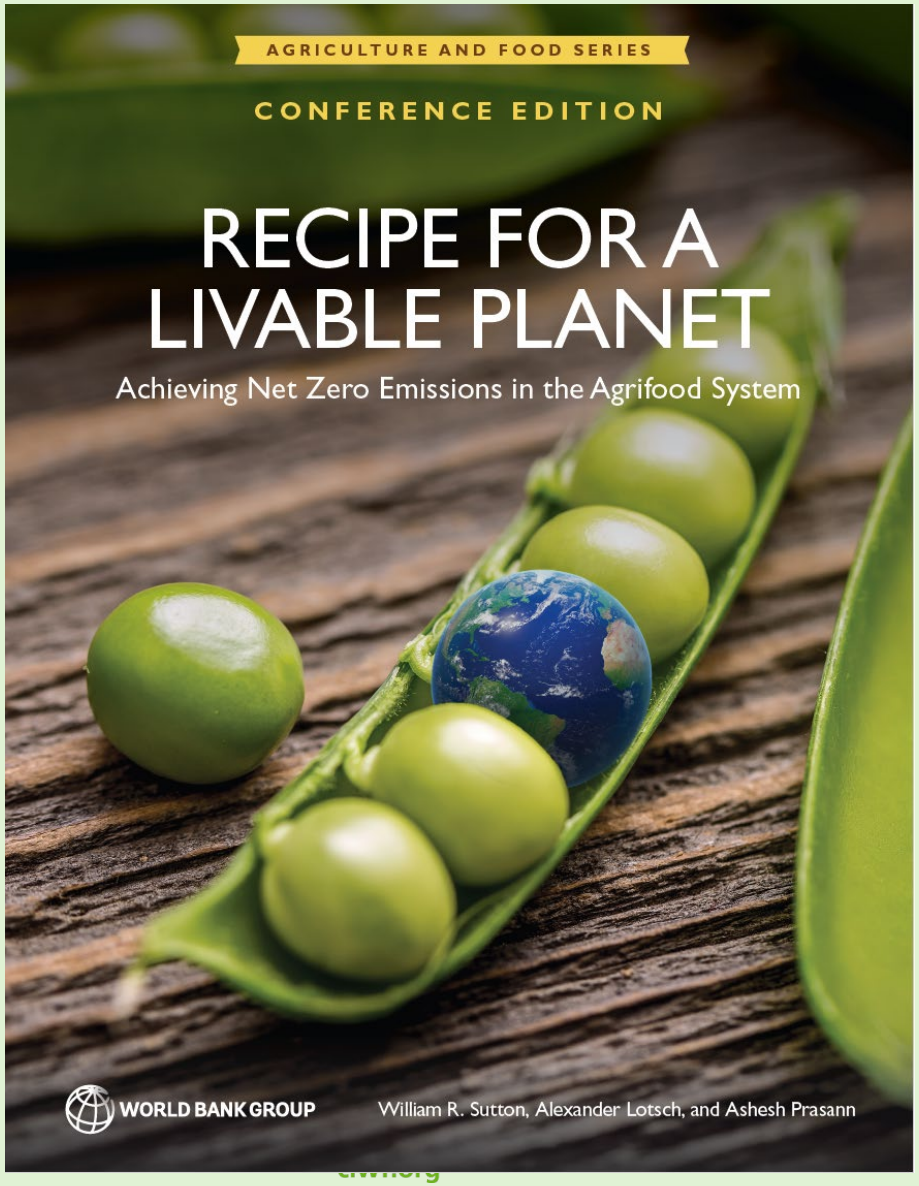
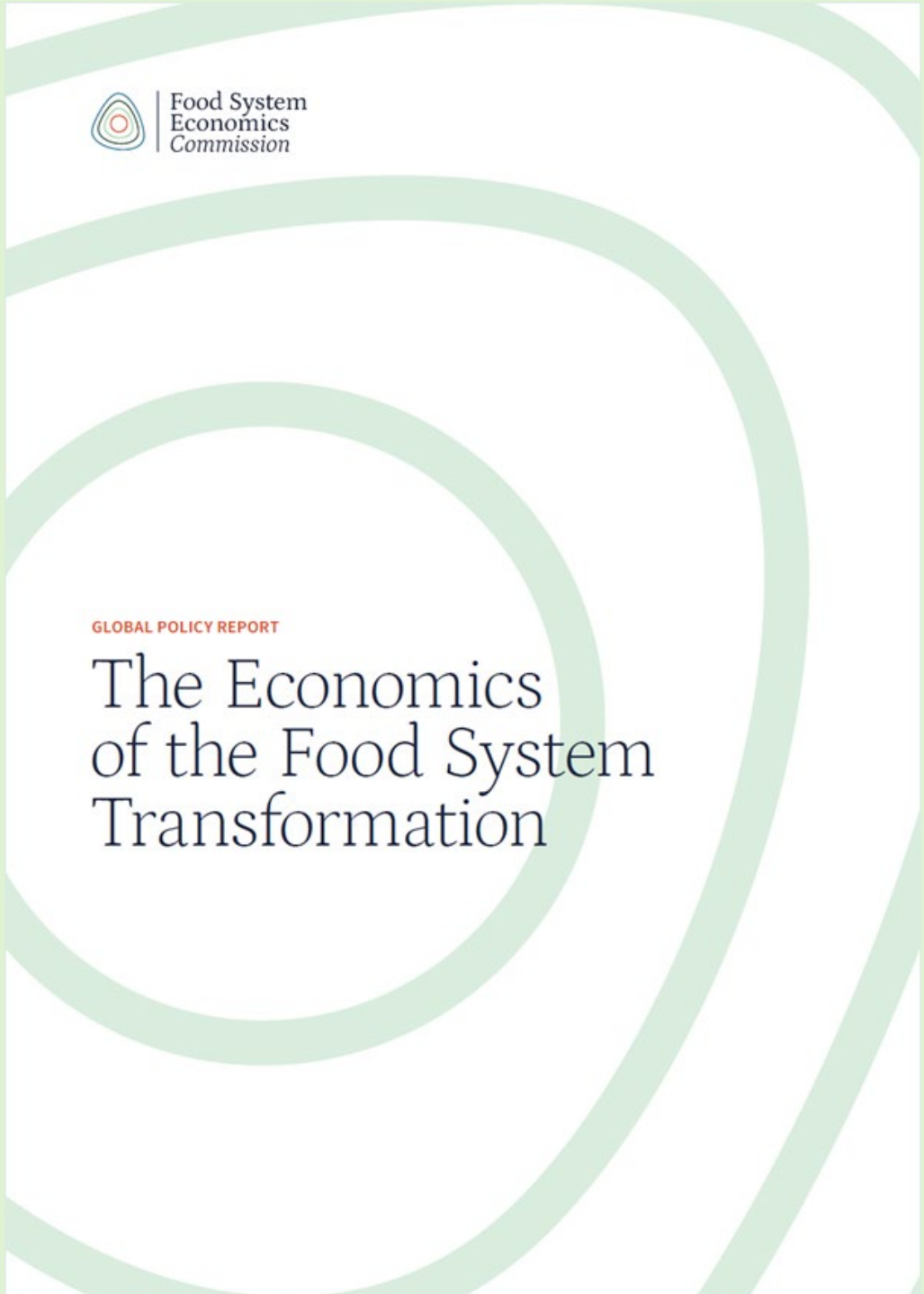
“Diets that are predominantly plant-based correlate with lower nitrogen footprints, lower greenhouse gas emissions and positive health outcomes compared with current diets in the EU”



World Bank Report





To tackle the global climate, nature & health emergencies, the following reductions in per capita intake of animal source foods are needed by 2050 compared with 2020;

High-income countries	**68% reduction**
Middle-income countries	**62% reduction**

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