

SCOTLAND'S LAND: SUCCESSES AND FAILURES, CHALLENGES AND SOLUTIONS

The woes 3 minutes

Oh, dear what has been done to the land over 6000 years of stewardship

- Drainage of wetlands and C release: Flow Country
- Removal of peat for agriculture: Stirling carselands
- Forestry: Loch Ossian trials of non-natives by Sir John Stirling Maxwell through to Loch Dungeon planting and rise of Sitka and other conifer species
- Too many red deer: decades of control failure
- Conversion of low intensity to high intensity uses: agriculture ploughing down the slope & removal of hedgerows
- Soil loss and degradation on farmland
- Inequity of CAP funds distribution Single Farm Payment map
- No national protection for prime farmland from development

Don't leave now as it gets better and this is not an environmentalists sack and ashes diatribe. But we must recognise some past realities in working for an even better future. Peter Wilson photo was a pragmatist and the honour given to me to present this year's talk places a responsibility on me to come up with some solutions.

Slide of 3 lecture elements So first let's celebrate and build upon Scotland's natural diversity; second, let's recognise that we live in challenging times and we must not kid ourselves otherwise; and third, let's find some solutions: my three Ms.

Celebrating natural diversity 5 minutes

Scotland is the most naturally diverse small country in the world.

- Variety of structures and rock types
- Diversity of glacial and periglacial activities
- Soil diversity 600 types
- Variety of habitats new SNH map
- Diversity of cultural landscape

Make this point to emphasise that **one size fits all defies natural common sense**. So let's work with Scotland's natural

Challenging times 15 minutes 5 points 3 minutes each photo oil seed rape?

Many issues and challenges

1. Can we bring back the past?

- Beech trees and hedges as part of agricultural improvement and role of sycamore trees although non-native
- Hydro-electricity schemes hated now loved
- bring back lost species- great successes osprey, white tailed eagle, red kite but still not resolved. Beavers private action but fully scientific assessment. Let's look at the lynx seriously and scientifically and then socially and economically
- successes of restoration eg Carrifran Wild Woodlands and Flow Country tree removal

- Should we turn the clock back? The natural idyll of when? Let's use knowledge & modelling to test new futures
- 2. Do we hide away from real conflicts?**
 - Battle of the moorlands: sheep v deer v game birds v nature birds v trees v wind turbines
 - new groups to resolve grouse moor and deer management forestry expansion strategy to provide timber for the processing industry
 - integrated approaches not silo separation
 - 3. Who should own the land anyway?**
 - Challenge FM 432 own half land and target of 1m ac community ownership by 2020 is that the real issue seen from natural capital perspective?
 - Are big and foreign really bad and are community and charity really good: Dalkeith, Glenfeshie/Mar Lodge Assynt examples
 - How do we build the capacity to manage land in perpetuity?
 - It's how the land is looked after now and for future that counts most
 - 4. What should we do about climate change?**
 - Recognise natural capital assets eg soil C stores of vital importance for the future
 - Plan & implement renewable energy and forestry expansion sites strategically in relation to other natural capital assets but not single solutions approach & more controls
 - Develop connections in the landscape to overcome fragmentation of habitats and the negative effects of intensive agriculture (see repeated analyses of the EEA)
 - 5. And what about Brexit?**
 - Watch they we do not lose the instruments that have cleaned up water and land eg point and diffuse pollution measures,
 - Watch we do not lose the protection of key habitats and species under the Natura 2000 scheme
 - Need proper enforcement and legal redress for non-compliance
 - Recognise that the CAP is dead hurrah 'public money for public goods' and recognise that land serves many purposes not just food production

Solutions? The three Ms 30 minutes

MAPS 7 minutes

Maps are essential decision support and decision-making tools: spatial strategies and action.

Problem silo policies and action on the ground

Need The new map of Scotland for now and for decades ahead with the key elements to identify opportunities and constraints: agriculture, environmental improvement areas, landscape & scenery, nature, wind farms & commercial forestry, corridor connectivity, greenspace, housing

Use LU Strategy (RSE study plug): Regional LU Partnerships for locally relevant spatial strategies

Spatial planning with the future(s) in mind but not future proofing we are not clever enough!!!!

MECHANISMS 15 minutes

No not some dreary list of a retired environmental bureaucrat but a cocktail of ingredients across a very broad spectrum

Stewardship

Public money for public goods. Take SCotGov Land Rights & Responsibilities Statement Principles and apply using long term contracts, to all owners & managers & tenants, codes, advisory service support, redistribute CAP money

Education

Land literacy is essential for all to have and to be fundamental part of the educational programme at primary and secondary levels. Knowing about our world and our place must be heart of curriculum to school leaving age. its modern geography - plug for subject and roles of RSGS and SAGT.

Definitely need national Curriculum through reinvigorated CfE not devolved to Head Teachers to dabble with our children's future in ad hoc manner through restricting subject choice beyond the Broad General Education phase and stopping outdoor learning

Use fieldwork and outdoor learning to promote this more effectively and don't allow schools timetabling to block it. Why not have rural/urban schools twinning schemes at least virtually to gain insights and understanding eg Dalry schools link

Engagement

Centralisation is a curse to getting greater understanding of the land and environment: learn from traditional knowledge residing in local communities and role of stakeholders and right holders. So use shared governance quote IUCN Governance experience. Challenge government and its agencies and NGOs to share power effectively. Eg establish Land Use strategy Regional Groups to develop ideas. Eg use models like SCIO used by GSA BSR

Demonstration

Lots of demonstration projects through SRUC & JHI Demonstrate good practice & innovation: action, learning and dissemination by making them accessible to public and schools to improve land literacy

Science

Continue government funded research & ensure dissemination basic science to achieve greater understanding of implications of climate change for land, landscapes, species and habitats and to develop the most effective land use practices to deal with the three potent GHGs carbon, methane and nitrogen, whole life protocols, long term change monitoring causes, more behavioural science

SEFARI good.

Let's fill the gaps in our HEI on land knowledge no centres of expertise in universities to compliment what JHI and SRUC do. SFC to seriously consider pump priming land knowledge collaborative and interdisciplinary centre of excellence

SEEDS as the catalyst for improved approaches but

MENTALITIES 8 minutes

Most difficult and most essential. Scotland well connected but when proverbial 'push comes to shove' retreat to prepared positions. Remind listeners of prepared positions and the syndromes; BSE, NIH, NIMBY MAMBA etc

New paradigm from Hine Crofts and Becker

Remind listeners of Ulysses Seal & participation resolution approaches

What needs to happen in changing attitudes

If the 3 leads at the Paris Climate Change conference can get agreement so should we

END POINT 1 minute

Think long and creatively and employ objective evidence to build with the future in mind: no one single answer or approach will do, no all Scotland solution will work. Three Ms is way forward:

- New Map: spatial planning with the future in mind
- New mechanisms: developing creatively the SEEDS, and
- New mentalities to change attitudes and behaviours