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A systematic review on adaptation strategies to climate change in support of policy and decision-making in temperate regions.

BACKGROUND: Mitigation has been society's main response to climate change. Despite the ongoing debate around it, namely the types of action, their necessity and effectiveness, there is now increasing evidence to support that some climate change either human-induced or natural will continue, despite the mitigation efforts. Such evidence suggests that adaptation is inevitable, emphasising the need for research and policy-making to focus on this field, especially in developed countries where adaptation action has been limited until recently. Adaptation will remain largely an autonomous process. However, there are concerns that it will not be optimal unless it is supported by cross-sectoral plans.

AIM: Synthesis of climate change adaptation measures that have been applied or will be applied in cool temperate areas, in the sectors of agriculture, water management and nature management.

METHODOLOGICAL & ANALYTIC APPROACH: Systematic literature review, Content analysis and Classification

I. Literature search

- Literature: Peer-reviewed journals (original research and reviews)
- Database: ISI Web of Knowledge (all databases)
- Time span: All years
- Keywords: Combinations of Climate change, Adaptation, Agriculture, Water management, Nature management, temperate, Rural society, Adaptive Capacity & Rural society & CC, Farmer*, Institutional adaptation, Ecosystem Services, Adaptation measure, Regional adaptation

II. Literature selection

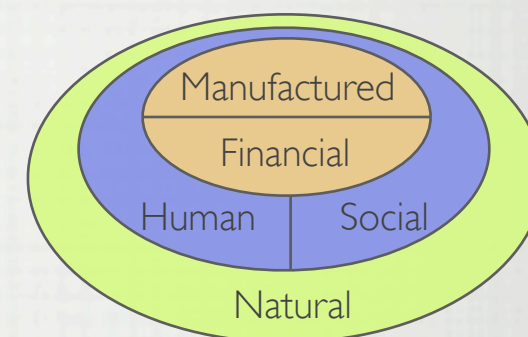
- Selection criteria: Articles' relevancy to the scope of the review

Location of the study area



Source: EBONE project

III. Classification framework



Adapted from <http://www.forumforthefuture.org/project/five-capitals/overview>

PRELIMINARY RESULTS

Human	Social	Manufactured	Financial	Natural	Climate change impacts
Nutritional manipulation Management practices Management strategy Allocation of resources Synchronisation of activities Knowledge generation/ research	Policy-science interaction Policy-practice interaction Knowledge transfer Social networks Technical assistance Policy making Institutional reforms	Technology Infrastructure	Subsidies Taxes Insurance Market conditions Prices Investments	Resources Ecosystem services	Drought stress Heat stress Floods Disease, pests and weeds Water pollution Soil degradation General or undefined

CONCLUDING REMARKS: Systematic review offers a transparent and comparable method for literature searches. Possible disadvantages are the high demand in time. Other constraints are access to literature and language. Analysis indicated that greater emphasis has been placed on agriculture compare to the other two sectors. The majority of measures are linked to the manufactured and natural capitals. Adaptation will be challenged by sectoral and cross-sector tradeoffs.

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