



Online Workshop on Co-creating UK Socio-economic Scenarios

4-7 May 2020

Summary of preliminary output on drivers of future socio-economic development

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An online workshop was held on 4-7 May 2020 to co-create socio-economic scenarios for the UK with a range of stakeholders from academia, policy, practice and business. 37 stakeholders participated in the workshop that focused on developing downscaled and enriched versions of the IPCC-related Shared Socio-economic Pathways (SSPs) for the UK and its countries (England, Wales, Scotland and Northern Ireland).

The workshop was part of the project “*Development and provision of UK socio-economic scenarios for climate vulnerability, impact, adaptation and services research and policy*” funded by the UK Climate Resilience Strategic Priority Fund. The project will generate four products for use by UK research and stakeholder communities: (i) narratives for all five SSPs for the UK and its countries; (ii) tables of semi-quantitative trends for a wide range of socio-economic indicators; (iii) quantifications for specific indicators at the appropriate temporal and spatial resolution depending on user needs; and (iv) a set of interactive visualisations that show the interrelationships between the key drivers represented in the scenarios and ensure internal consistency in their future projections. The projections will be linked to the IPCC global scenario framework of Shared Socio-economic Pathways (SSPs) and Representative Concentration Pathways (RCPs) to ensure cross-sector consistency in scenario application within the UK and cross-scale consistency with other international scenario initiatives, such as future IPCC Assessments.

This report presents our preliminary outputs from Session 1 of the workshop on “Drivers and Uncertainties”. Participants were asked to suggest drivers that were particularly important and uncertain for determining the socio-economic development of the UK over this century. Drivers were clustered into driver categories by participants as we progressed through the session. After cleaning and processing the primary data, 14 final driver categories emerged as being key for future socio-economic development in the UK. In the following pages we present the WordClouds for each of these 14 driver categories and summarise their key dimensions. These were used in subsequent workshop sessions to provide context for developing the UK Shared Socio-economic Pathways (UK-SSPs).

We are currently cleaning and analysing the information provided within other workshop sessions and aim to get back in touch with participants in early September to ask for feedback on the draft narratives and systems diagrams for each UK-SSP.

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Driver 1: UK/Devolved Administration Policy & Governance

Driver 1 “UK/Devolved Administration Policy & Governance” included the dimensions of the level of centralisation within the UK, different political and economic models, public spending and different types of policies.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between the two extremes of centralized UK governance, and devolved governance.



Figure 1: Word cloud for the driver “UK/Devolved Administration Policy & Governance”.

Driver 2: International relations

The key dimensions of Driver 2 “International relations” were the UK’s relationship with the rest of the world, including trade, supply chains, the role of populism in international relations and different types of policies influencing international relationships between countries.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between the two extremes of a protectionist/nationalistic view of how international relationships might evolve, and a more globalised future with less barriers to trade and broader international cooperation.



Figure 2: Word cloud for the driver “International relations”.

Driver 3: Response to global shocks

The key dimensions of Driver 3 “Response to global shocks” were different aspects of recovery after pandemics and other types of global shocks (including those related to climate and other social and natural hazards). The priority was given to different types of responses, and economic aspects of the responses.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between the two extremes of “persistence” (responding to global shocks reactively, trying to sustain previous patterns) and “transformative change” (responding in novel ways compared to the past, both politically and socially).

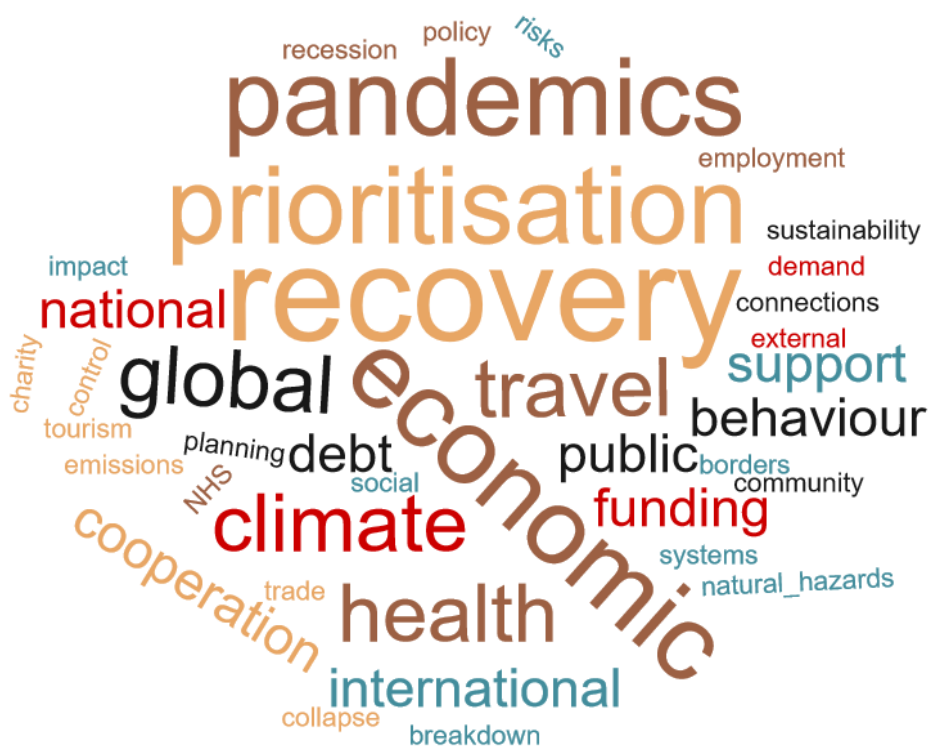


Figure 3: Word cloud for the driver “Response to global shocks”.

Driver 4: Public attitudes

The key dimensions of Driver 4 “Public attitudes” were different types of public perceptions of, and attitudes to, social and environmental dynamics (including climate extremes and extreme weather events), changes in individual and societal behaviour and consumption patterns.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between the two extremes of an engaged and inspired society, empowered to change its attitudes, with high levels of trust in the government, and a disillusioned, disengaged and disempowered society, not likely to change its behaviour and lifestyles.



Figure 4: Word cloud for the driver “Public attitudes”.

Driver 5: Social structure

The key dimensions of Driver 5 “Social structure” were social inequality, social justice, as well as societal division between regions, generations, rural and urban areas.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between the two extremes of a society where just a few privileged people benefit from the economy, access to health care, education, etc., and an egalitarian society where many people enjoy the benefits of the society in which they live equally.



Figure 5: Word cloud for the driver “Social structure”.

Driver 6: Natural resources

The key dimensions of Driver 6 “Natural resources” were resource availability and scarcity (e.g. water scarcity), biodiversity loss, the role of food production and diets, climate, land use as well as different aspects of trade, policies and solutions (including nature-based solutions).

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between the two extremes of a resource-friendly, sustainable way in which resources are used, and overexploitation of resources related to using them in an unsustainable way.



Figure 6: Word cloud for the driver “Natural resources”.

Driver 7: Technology

The key dimensions of Driver 7 “Technology” were automation and digitalisation, different types of innovation in technology and energy, access to technology, as well as the links to economy, policies and employment.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between the two extremes of slow vs. rapid technological development.



Figure 7: Word cloud for the driver “Technology”.

Driver 8: Education

The key dimensions of Driver 8 “Education” were different types of education and research, ranging from university education to lifelong learning, awareness raising and developing scientific and climate literacy among the general public. Equally important were the issues of funding of education, research and development.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between the two extremes of low investment and high investment. Importantly, different types of investments were included in these extremes, e.g. private and public, monetary and non-monetary (time, capacity), depending on the context of a specific future scenario.



Figure 8: Word cloud for the driver “Education”.

Driver 9: Demography

The key dimensions of Driver 9 “Demography” were population growth and ageing, migration, employment and divisions between different parts of the society, including age, and rural vs. urban areas.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between two extremes that were related to the age-profile of the population. Specifically, the extremes were a low proportion of people over 65 years in the society, vs. a high proportion of people in this age category.

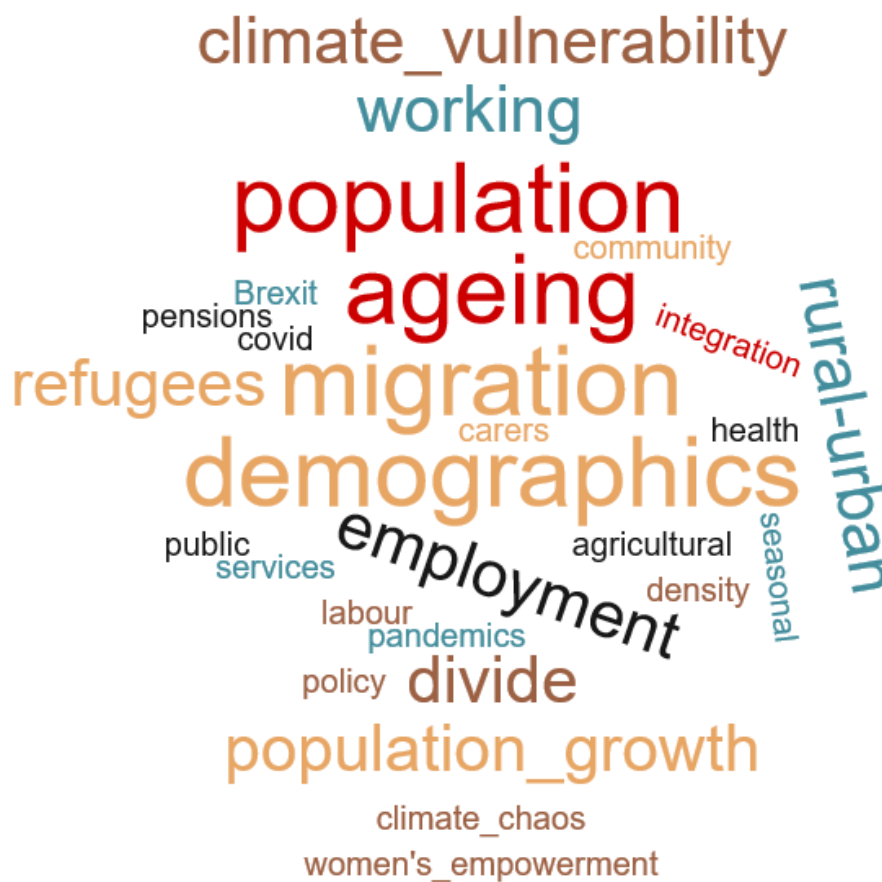


Figure 9: Word cloud for the driver “Demography”.

Driver 10: Energy

The key dimensions of Driver 10 “Energy” were different types of energy sources (including fossil fuels vs. green sources and renewables), the level of decarbonisation, as well as the link to policies, lobbying and behaviours.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between the two extremes of low-carbon energy (such as solar or wind energy) vs. high-carbon energy (such as fossil fuels).

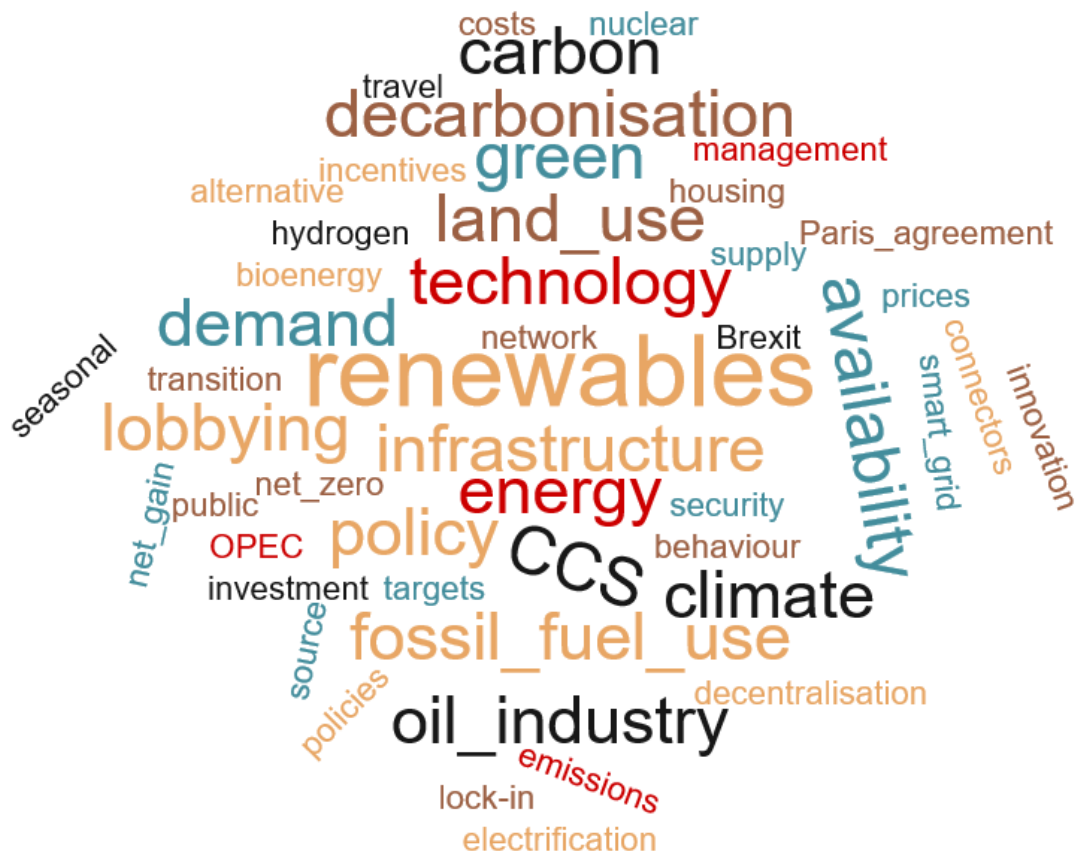


Figure 10: Word cloud for the driver “Energy”.

Driver 11: Food

The key dimensions of Driver 11 “Food” were related to different parts of food supply chains (including supply and demand, local to global), links to trade and land use, the role of diets and meat consumption as well as broader consumers’ behaviour and demand.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between two extremes that were related to diet composition, particularly meat consumption. Specifically, the extremes included low-meat diet and high-meat diet.



Figure 11: Word cloud for the driver “Food”.

Driver 12: Economic development

The key dimensions of Driver 12 “Economic development” were related to economic policies, the overarching future economic model, economic growth (vs. degrowth), trade, employment and inequality.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between two extremes that were related to moving towards a traditional market-based economic system vs. moving towards a novel economic system. The latter extreme was left intentionally vague in order to allow for different interpretations in the context of the UK-SSPs (e.g. inclusive wealth, degrowth, non-monetary economic systems).



Figure 12: Word cloud for the driver “Economic development”.

Driver 13: Health

The key dimensions of Driver 13 “Health” were related to the future of the NHS, future pandemics and other crises (e.g. climate-related), as well as equal access to health care.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between the two extremes of low vs. high investment in health. Similar to the driver on Education, the specific interpretation of the type of an investment was left to the context of a specific future scenario (including public or private, monetary or non-monetary investments).

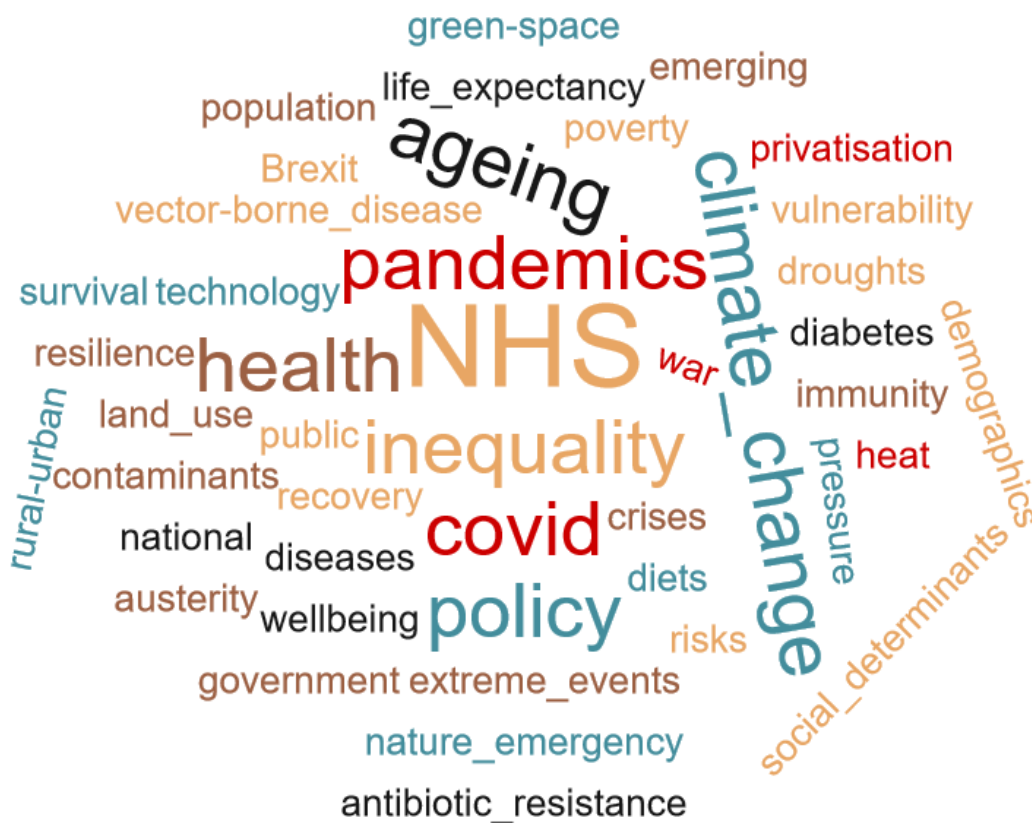


Figure 13: Word cloud for the driver “Health”.

Driver 14: Transport & mobility

The key dimensions of Driver 14 “Transport & mobility” were related to different modes of transport, travel, tourism and mobility, as well as their sustainability. An important aspect were the investments in transport infrastructure as well as the link to lifestyles and behaviour.

To provide context for the development of the UK-SSPs, participants considered how the driver might develop in each scenario between the two extremes of low mobility and high mobility of the population, depending on factors such as the investment in transport infrastructure and the level to which it is accessible for different parts of the society.



Figure 14: Word cloud for the driver “Transport & mobility” (note: since this driver was included only later in the process, the specific terms under this driver were derived from the content of the previous drivers and the project team).

Acknowledgements

We are extremely grateful to workshop participants for all their valuable input to the scenarios and hope you find the first taste of our workshop findings useful.

Project team:



UK Centre for
Ecology & Hydrology



THE UNIVERSITY
of EDINBURGH



Project funding:



 Met Office