

# Executive summary

Co-production is being used to improve the quality of weather and climate services and to encourage better use of these services in a range of decisions across many sectors. The key to a co-production approach is bringing together the producers of weather and climate information with those who use the information to make decisions, often using intermediaries to help connect these actors, in order to solve a problem where weather and climate information is relevant. A number of donors are encouraging the use of co-production to drive further improvements in weather and climate services.

The manual outlines six building blocks in the co-production process. These building blocks do not need to be followed sequentially. Co-production can be used for different purposes. As a result, co-production can be used in all, or some, building blocks depending on the problem to be addressed. Most research projects will involve users in the identification of research questions but not always in the co-development of solutions step, for example.



**FIGURE A:** The building blocks of co-production (building on models developed by AMMA-2050, Visman et al., 2017b and KCL engagement in two BRACED consortia projects in Visman et al., 2018 and WISER 2017)

This manual has devised a simple spectrum of co-production approaches, made up of consultative co-production on the far left, and immersive co-production on the far right.

- Consultative co-production is best suited for problems that are pre-defined and co-production is often limited to specific building blocks.
- Immersive co-production is best suited for exploration of problems where the outcome is flexible and might require a series of engagements to understand and solve problems.




**FIGURE B:** Spectrum of co-production approaches

The manual identifies ten principles for good co-production that have been drawn together from learning from a number of recent programmes including WISER, BRACED and FCFA:



**FIGURE C:** Ten principles for good co-production

Co-production has already helped to improve weather and climate services in Africa. A wealth of learning from 18 case studies from across Africa demonstrate how co-production can be done. Drawn on through the main text as 'in practice' examples (these can easily be found by looking for this icon ) and included as annexes, these case studies demonstrate how implementing the principles and building blocks play out in practice.

Co-production is often a resource intensive process and needs to be adequately supported both in terms of funding and time. However, the added value from taking a co-production approach can result in significant benefits:

- Co-production ensures that climate information is tailored to a specific context, and is therefore more likely to be valuable to the user.
- Co-production brings people together, which can create synergies and opportunities for resource sharing and creative thinking on cost effectiveness.
- Co-production ensures a wider reach and impact through multiple communication channels, engaging intermediaries and users, and improves the tailoring of communication to specific audiences.
- Co-production and joint ownership promotes integration of climate information into actions and likewise into plans and budgets.
- Co-production creates a virtuous cycle: investment in capacities to co-produce better, more relevant products and information, and enable more user-focused communication, leads to better understanding, use and benefits; which contributes to resilient livelihoods and economic development; and ultimately increases demand for more and better climate information.

There is growing evidence that co-production of weather and climate services can result in improved outcomes. For example, in the WISER Strengthening Climate Information Partnerships-East Africa (SCIPEA) project, co-production determined that the timing of seasonal forecasts was too late to be useful to farmers. The communities that embrace these kinds of initiatives see a substantial improvement in crop yields (WISER, 2019). The FCFA programme also shows that the co-production process, in and of itself, can be beneficial in building trust and laying the foundations for further collaboration. For instance, in the FRACTAL project, the relationships built between researchers and city officials have already resulted in additional collaborative projects such as climate change think tanks and additional research on climate change health impacts in Mozambique.



Transporting water, Kenya (Source: B. Aygun/Milfoto, Flickr, 2011)