# Facing up to a future of water scarcity



# **EXPERT VIEW**

Could 2022 be another record breaking year for water? Melvyn Kay looks ahead.

le seem to be continually facing weather extremes. mini droughts and then floods, which all suggest that climate change is beginning to bite-especially when it comes to water.

So far in 2022, we have seen only 34% of our long term average rainfall across the Anglian region with much falling in the first week of the year. In fact, January was the fifth driest month on record for East Anglia.

That said, soil moisture deficits remain normal - and so too do most river flows and groundwater levels. But the Environment Agency suggests there is an increased probability of below normal flows in several rivers during March.

Most on farm reservoirs should now be full or nearly there because of early winter rains. If not, it would be wise to fill them as soon as possible to avoid hands-off flows in rivers if low rain-

Last year was relatively uneventful from a water availability viewpoint. Indeed, problems remain more administrative as the Environment Agency explains switching from abstraction licensing to permitting.

The agency has hosted workshops to explain the changes and the UK Irrigation Association (UKIA) hosted a meeting online - available now on video for members. But the devil will be in the detail and we wait to see how any changes will turn out.

### Reservoir grants

Grants for farm reservoirs and water efficiency measures were made avail-

able by the Rural Payments Agency last November. It was not a lot of money - and again the UKIA put irrigators wanting to apply in contact with key RPA staff.

Although not well publicised, farm reservoirs do more than store water. They can provide valuable ecosystem services. Once built, reservoirs can become a haven for flora and wildlife although ducks defecating on lettuce crops are no joke.

Besides securing home food production, reservoirs benefit other water users downstream too - as irrigators switch abstraction from precious summer river flows to winter when water is usually more plentiful.

So grants for reservoirs are not just hand-outs to farmers, I see them as justified spending of public money to produce public goods.

Planning farm reservoirs is essential to have bids ready in the back pocket come the next round of grants. Information on reservoir planning including a masterclass video - are all available on the UKIA website.

The lockdown has inspired lots of useful videos for irrigators. Workshops and online seminars cover various subjects such as water harvesting (Jerry

Water remains an increasingly precious resource for agriculture

Picture: Simon Collins/ Shutterstock.com



## Water

Continued from previous page Knox, Cranfield University) and potato irrigation (Mark Stalham).

Others include sharing Water in a catchment (Ian Holman, Cranfield University, and planning future water for food in east Suffolk (Tim Darby, ES-WAG and Paul Bradford consultant). All are available on the UKIA website.

### **Looking overseas**

Further afield, the UN Food and Agriculture Organisation (FAO) has published its ten-year global review of the state of land and water resources. Bearing in mind that over 50% of our food is imported, it is a document worth reading.

Globally, we are fast running out of good agricultural land, healthy soils and water. The world's population is expected to reach 9.7 billion by 2050 - and the FAO suggests farmers must produce almost 50% more food to satisfy global demand.

Options to expand cultivated land areas are limited. Prime agricultural land is being degraded and lost to urbanisation. Irrigation accounts for 40% of world food production and already withdraws 70% of all freshwater withdrawals.

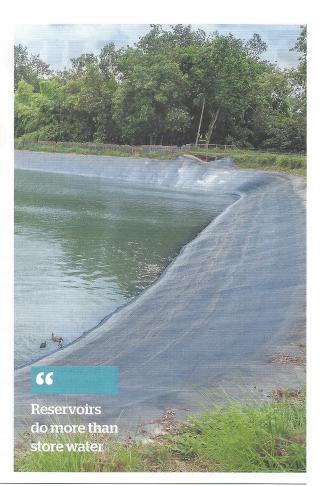
The there is climate change-which adds to the risk for agricultural production. The FAO says change is essential. "Business as usual" is no longer an option, it says, and will set a course for disaster. But there is cause for hope.

The technologies are available to produce enough food, but technologies alone are unlikely to fix problems when resource governance is weak. Unfortunately good land and water governance is a commodity thin on the ground in many countries.

It will be essential to create the transformative changes needed to achieve patterns of sustainable agriculture. Does this mean we should all eat more vegetables? The question should be: do we have enough land and water resources?

The FAO report is quiet on this. But it does point out that no one has yet calculated the adjustments needed to land and water resources to service changes in crop production to substitute for animal protein. Now that will be a really interesting study.

Melvyn Kay is executive secretary of the UKIrrigation Association. For details, visit www.ukia.org





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