Crystal Ball - UC ANR in to the future

The future will look different with major changes in society that will influence our role. Here is a summary of some major factors, their primary implications and what it means for UC ANR. The Table also shows where the SIs are potentially engaged. Factors align quite well with the SI Focal areas and Grand Challenges. Share your thoughts.

Our Environment

Factor	Implications*	UC ANR Role/Response*
Climate change	• Significant variation in temperature and water. • More **Fire** and unknown **water** (Drought and flood, mud slides) (SNE, SFS, Water) • Food production uncertainty: Lab Farming, ..? • More pests (SNE, SFS)	• Resilience and adaptation to variation. (SNE, SFS) • Land use policy (SNE) • Safe communities and systems (SNE, HFC) • Sustainability (Food and Natural Resources) (SFS, SNE) • Pests (EIPD, SFS, SNE) • Water (Water, SFS, SNE, HFC)
Water	Quantity, quality & competing demands	• Safe and secure drinking water, groundwater and surface water (Water, SFS, SNE, HFC)

* In each case, which of the **SI Focal areas and Grand Challenges** fit with the need.

Our Society

Factor	Implications	UC ANR Role/Response
Changing Demographics	• Where people live, • Increased Diversity – the need for Equity and Inclusion • **Food Access (SFS)**	• Urban Hort (SNE) • Stem and Youth development (HFC) • Community development & Public Policy (HFC)
Food preferences and Food safety	• **Food safety (SFS)** • Lab Farming • **Regulatory requirements (SFS)** • **Obesity (HFC)**	• Current and emerging Pest management (EIPD) • Food literacy and healthy living; public policy (HFC) • Associated practices (SFS)
Labor shortage	• Robotics, Smart Farms (SFS) • Lab Farming	• Being linked and aware of changes

		• Working with industry (robotics developers) on associated practices (SFS)

Emerging Technology

Factor	Implications	UC ANR Role/Response
Information access - 24 hour - anytime, anywhere	• People expect information to be always and easily discoverable and "attractive". • Crowdsourcing	• How we package and deliver (Virtual and video!) • Potential to access communities for input.
Smart Technology including Artificial Intelligence (AI)	• Certain jobs and tasks will disappear (e.g., diagnostics) • Sensors everywhere!	• Develop the basic information that feeds into the "starter" AI systems? (e.g., iNaturalist) • Career preparation?
CRSPR	• Custom engineer plants	• Education - what and why

Organizations

Factor	Implications	UC ANR Role/Response
Institutional structures	• How organizations function - the need for speed in reaction and agility	• New partnerships • Need a new agility and ability to quickly respond

EIPD = Endemic and Invasive Pests and Diseases

SNE = Sustainable Natural Ecosystems

SFS = Sustainable Food Systems

HFC = Healthy Families and Communities

Water = Water