An International Drought Mitigation Research Center

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Rationale - Core issues



- •Drought mitigation research and development issues are extremely complex and not necessarily capable of being tackled by single institutes or even countries in isolation.
- •'We cannot do this work alone' we need to learn from each other.
- •Significant gaps in <u>research</u>, <u>policy and practice remain</u>, particularly regarding the merits of risk management compared with traditional crisis management approaches (IDMP, 2017).
- •Suggestion: <u>as a component of IDMP</u>, the creation of an International Drought Mitigation <u>Research</u> Centre that will initiate global research initiatives, including building upon key existing regional initiatives, that are already providing valuable developments.

Huge value in a collaborative research framework that has a focus on management systems.

- Improving seasonal climate forecasts
- Improving the ability of forecasts to predict multi year/decadal droughts-
- Climate change adaptation for agricultural industries
- Producing enhanced "named-peril" crop insurance systems /similar
- Improved crop yield and production forecasts
- Developing products for use in drought monitoring: drought indices
- Developing and customising decision support tools
- Revamping Managing for Climate user engagement Workshops
- Crop production modelling under climate change and regional adaptation
- Assessing the economic value of improved climate risk management strategies through the application of seasonal climate forecasts for key agricultural industries

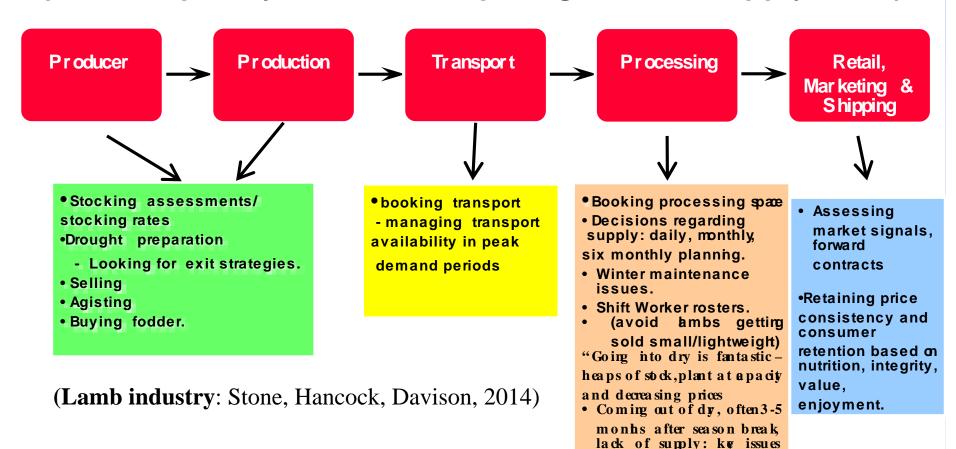
- sub-seasonal to seasonal climate variability and their impact on US drought.
- Assess and utilise decadal prediction systems
- Evaluating/developing dynamical climate models: includes hybrid statistical-dynamical type techniques
- Assess 'flash droughts' short term development of severe droughts.
- Linking land surface initial conditions with modelling to provide an important source for skilful drought forecasts
 - interdisciplinary research and applications: to ensure federal research is as coordinated and integrated into decision-making as practicable, inspiring interaction between the research community and beneficiaries.

NIDIS/USDMC

QDMC

Climate/drought information/forecasting research has no value unless it changes a management decision...

(interdisciplinary research example: agricultural supply chain)



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International Drought Mitigation Research Center: Summary

- Integral component of IDMP—"a key research component for IDMP"
- •Strong links and support to GFCS ("GFCS provides a worldwide mechanism for coordinated actions to enhance the quality, quantity and application of climate services").
- •Ideally, strong links to FAO, UNDP, UN Environment, UNCCD, UNISDR and key global initiatives: NIDIS, IDMP in Eastern and Central Europe, USDMC,
- •Strong focus on *creating and researching drought management* systems relevant for industry, government, agriculture, water resources, insurance, engineering systems, climate science and applications, whole value chain approaches in agriculture, drought policy, communities and their management systems.
- •Capturing and synthesising major project and program initiatives underway in regions and countries to the benefit of international drought management needs its more than facilitation –
- •its actually doing the research.....