ARAB FUND FOR ECONOMIC
& SOCIAL DEVELOPMENT

Discussion
Future Considerations of Systems Reserach in Dry land Areas

Training Course

Impact Assessment and Livelihood Analysis in Systems Research

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Key problems facing dryland countries and production systems

○ **Food production systems in dryland countries are highly fragile**

○ **Some 16% of the population of dry lands live in poverty**

○ **Food imports are untenably high**

○ **Water scarcity is a constant and growing problem**

○ **Adverse climate events (extreme heat and cold; drought and flooding) are aggravating vulnerability**

Dryland countries and production systems: Key solutions

- Securing more resilience and reducing vulnerability of people living in marginal lands

- Achieving sustainable intensification of higher-potential agricultural areas

- Improved crop varieties and livestock breeds

- Integrated crop-livestock systems

- Conservation agriculture

- Diversification of food production systems

- Natural resource and especially water management

- More agricultural research and investment

- Climate smart agriculture initiatives

- Greater focus on the potential of agriculture in climate change negotiations

- Taking an integrated agro-ecosystem approach to these actions

Dryland Systems Research: Research Tracks

○ **Improved crop and livestock productivity and reduced variability in agricultural production in target systems.**

○ **New agribusiness and market opportunities and increased employment from the diversification of production systems and adding value to agricultural products.**

○ **Increased capacity of vulnerable smallholder farmers to adapt to climate change by adopting natural resource management options that improve the resilience of their livelihoods.**

○ **Equitable access to natural resources and better resources management.**

○ **Innovation platforms, across impact pathways.**

○ **Access to new knowledge for policy makers in target areas about agro-ecosystem development, and better focused investment in drylands.**

Dryland Systems Research: Methodological framework

○ Options X Context approaches

○ Bio-economic modeling

○ Impact assessment and technology adoptions

○ Farming systems research (bio-economic modeling, etc.)

Future Research Priorities Topics in Dry Land Areas

(Thoughts from the training course participants)

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