

**International Assessment of Agricultural Science and Technology for Development
(IAASTD)**

**Outline for CWANA Sub-Global Report
April 2007**

**Second Draft for Peer Review
(Not for citation)**

**CWANA Sub Global Report Chapter 1
SETTING THE SCENE**

Key Messages

1.1 Profile of the CWANA Region

- 1.1.1. Overview
- 1.1.2. Ecosystems
- 1.1.3. Water resources
- 1.1.4. Status of soils
- 1.1.5. Agrobiodiversity
- 1.1.6. Climate change
- 1.1.7. Geo-economics
- 1.1.8. Ability to save
- 1.1.9. Geo-politics

1.2 Wellbeing

- 1.2.1. Demography
- 1.2.2. Health indicators
- 1.2.4. Employment and unemployment
- 1.2.3. Food security

1.3. Status of Agriculture

- 1.3.1. Agricultural livelihood strategies
- 1.3.2. Agricultural land use
- 1.3.3. Livestock and fisheries

Key issues

Ecosystems
Population growth and demography
Water scarcity and its implication on agricultural production systems
Climate change
Land and water access, tenure and management
Infrastructures and financing for agricultural development
Local knowledge
Social equity and gender
Capacity development
Markets and policies
Access and use of agro biodiversity

1.5. Status of Agricultural KST

- 1.5.1 Knowledge
- 1.5.2 Science and technology

- 1.5.3. Extension and systems of technology transfers

References

[CWANA Sub Global Report Chapter 2](#) **HISTORICAL AND CURRENT PERSPECTIVES OF AKST**

Key Messages

2.1 Natural Resources, Agricultural Production and Infrastructure

2.1.1 Land use and land cover

2.1.2 Cropping patterns and productivity in CWANA

2.1.3 Water resource development and management

2.1.4 Infrastructure

2.1.5 Land degradation and water quality deterioration

2.1.6 Agriculture and carbon sequestration

2.1.7 Agrobiodiversity in CWANA

2.2. Policies, Institutions and Regulations

2.2.1 Development strategies and agricultural policies

2.2.2 Land tenure including agrarian reform

2.2.3 Trade policy

2.2.5 Professional and community organizations

2.2.6 Agricultural risk management policies, including drought risk

2.3 History of Public and Private Sector Investment in AKST

2.3.1 Investments in agricultural research and development

2.3.2 History of public agricultural research

2.3.3 Human resources in public agricultural R&D

2.3.4 Research intensity in public agricultural R&D

2.3.5 Returns to investments

2.4. Economic and Market Evolution

2.4.1 Inputs markets (agribusiness)

2.4.2 Per capita income growth and its distribution

2.4.3 Product markets

2.4.4 Agriculture market shares of CWANA in the global and regional markets

2.4.5 Changing lifestyles and consumer preferences and demands

2.4.6 Credit markets

2.4.7 Local markets and marketing channels

2.4.8 Labor market

2.4.9 Conclusion

2.5 Technology Transfer and Adoption

2.5.2 Traditional Knowledge in CWANA

2.6 AKST and its Impact on Agricultural Production and Development Goals

2.6.1 Impact on agricultural production and development goals

2.6.2 Options and insights of making more effective use of agricultural science and technology

2.6.3 Dynamic influencing the role of women in agriculture

[CWANA Sub Global Report Chapter 3](#)
AGRICULTURAL CHANGE AND PLAUSIBLE FUTURES

Key Messages

3.1 Introduction and Scope

3.2 Methods for Looking into the Future

3.2.1 Approaches for forward-looking assessments

3.3 Key Drivers of Agricultural Change and Major Policy Issues

3.3.1 Direct drivers

3.3.2 Indirect drivers

References

[CWANA Sub Global Report Chapter 4](#)
**LOOKING FORWARD: POLICIES, INSTITUTIONAL AND ORGANIZATIONAL
ARRANGEMENTS FOR AKST DEVELOPMENT AND APPLICATION**

Key Messages

4.1 Implications of Future Challenges for AKST Related Policies

4.1.1 Market and trade issues

4.1.1. Pricing policies

4.1.3. Research policy

4.1.4. Investment and funding policy

4.1.5. Intellectual propriety rights policy

4.2 Implications of Future Challenges for AKST-Related Institutions and Organizations

4.2.1 Cooperation

4.2.2 Innovation capacity building

4.2.3 Governance and Information

4.2.4 Social factors

4.3 Elements to Strengthening AKST Future Effectiveness

4.3.1 Business as usual related AKST

4.3.2 Sunset agriculture related AKST

4.3.3 Sunrise agriculture related AKST

4.3.4 People-centered and outward looking development

References

[CWANA Sub Global Report Chapter 5](#)
**LOOKING FORWARD: ROLE OF AKST IN MEETING DEVELOPMENT AND
SUSTAINABILITY GOALS**

Key Messages

5.1 The Role of AKST in Meeting Sustainable Development Goals

5.1.1. Scope

5.1.2. Most pressing/urgent areas where AKST can play a role in meeting sustainable development goals

5.2 Future AKST Options

5.2.1 Development pathways for AKST

5.2.2 Technological institutional and policy options

- 5.2.3 Capacity development options to overcome the challenges in CWANA
- 5.2.4 Policy options to overcome the challenges

5.3 Technological, Institutional and Policy Options (TIPOs)

- 5.3.1 Mitigation of global climate change
- 5.3.2 Actions to conserve biodiversity and promote sustainable use
- 5.3.3 Actions for food supply, security and nutrient cycling
- 5.3.4 Actions required for reducing desertified land
- 5.3.5 Actions for enhancing and sustaining of human capacity
- 5.3.6 New opportunities and technologies for abiotic and biotic stresses
- 5.3.7 Actions for enhancing economic development and sustainability

5.4 Implications of Various TIPOs on the Utilization of Local Knowledge, Development Pathways, Environmental Impact and Food Safety

- 5.4.1 Implications for the utilization of local knowledge
- 5.4.2 Implications for development pathways
- 5.4.3 Implications for the environment: assessing how TIPOS will affect natural resources
- 5.4.4 Implications for food safety and security

5.5 Mitigation of Measures Related to Negative Aspects of TIPOS

- 5.5.1 Determining measures to balance any negative impacts on natural resources
- 5.5.2 Determination of measures to overcome any negative aspects of TIPOS on food safety