



# **Greening Scenarios in Kenya: Threshold-21 Model**

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**Dr. Charles Mutai**

**Ministry of Environment, Water and Natural  
Resources**

# Objectives of Green Economy Assessment

- Assessment of opportunities and challenges related to green economy in Kenya;
- Stock-taking and review of green economy-related policies, initiatives and investments;
- Identify key enabling conditions and options;
- **Threshold model (T21) greening scenarios;** and
- Recommendations.

# Approaches of GE Assessment

- Quantitative and qualitative macro-economic analysis;
- Multi-stakeholder and multi-sectoral participatory and consultation
- Assessment by Kenya Institute of Public Policy Research and Analysis (KIPPRA); and
- T-21 Modelling support from Millennium Institute.



# T-21 Model

- T-21 is a System Dynamics based model designed to support national development planning;
- Structured to analyze medium-long term development issues at the national level;
- Integrates in a single framework the economic, the social, and the environmental aspects of development;
- Provides insight into the potential impact of development policies across a wide range of sectors.



# Kenya T-21

- T-21 absolute transparency, enhances open and participatory policy debate;
- Customization of Kenya T-21 is unique as it fully incorporates the impacts of climate change (across sectors) and selected mitigation and adaptation measures;
- T-21 Kenya allows to track progress toward the MDGs and the Vision for Kenya's future;
- Coordinated by Ministry of Devolution and Planning – trained sectoral modellers;

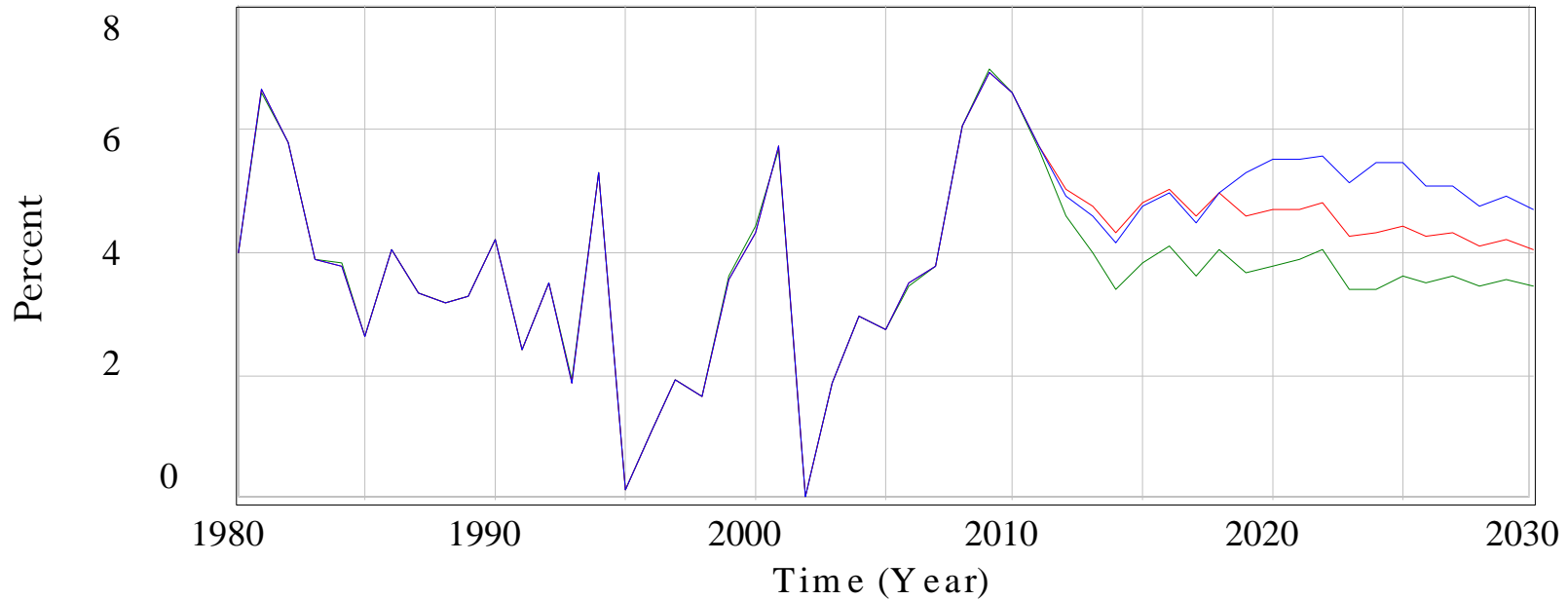
# T-21 Greening Scenarios

- BAU – No fundamental changes in policy or external conditions (continuation of brown economy);
- BAU 2% - an additional 2% of GDP investments to the current BAU (brown economy);
- GE 2% - assumes total additional green economy investment is a fixed proportion (2%) of GDP;
- Key sectors: Agriculture, Energy, Transport, and Industry.



# Kenya Real GDP growth rate

real gdp m p grow th ra te



real gdp m p grow th ra te : GE2%\_ \_\_\_\_\_

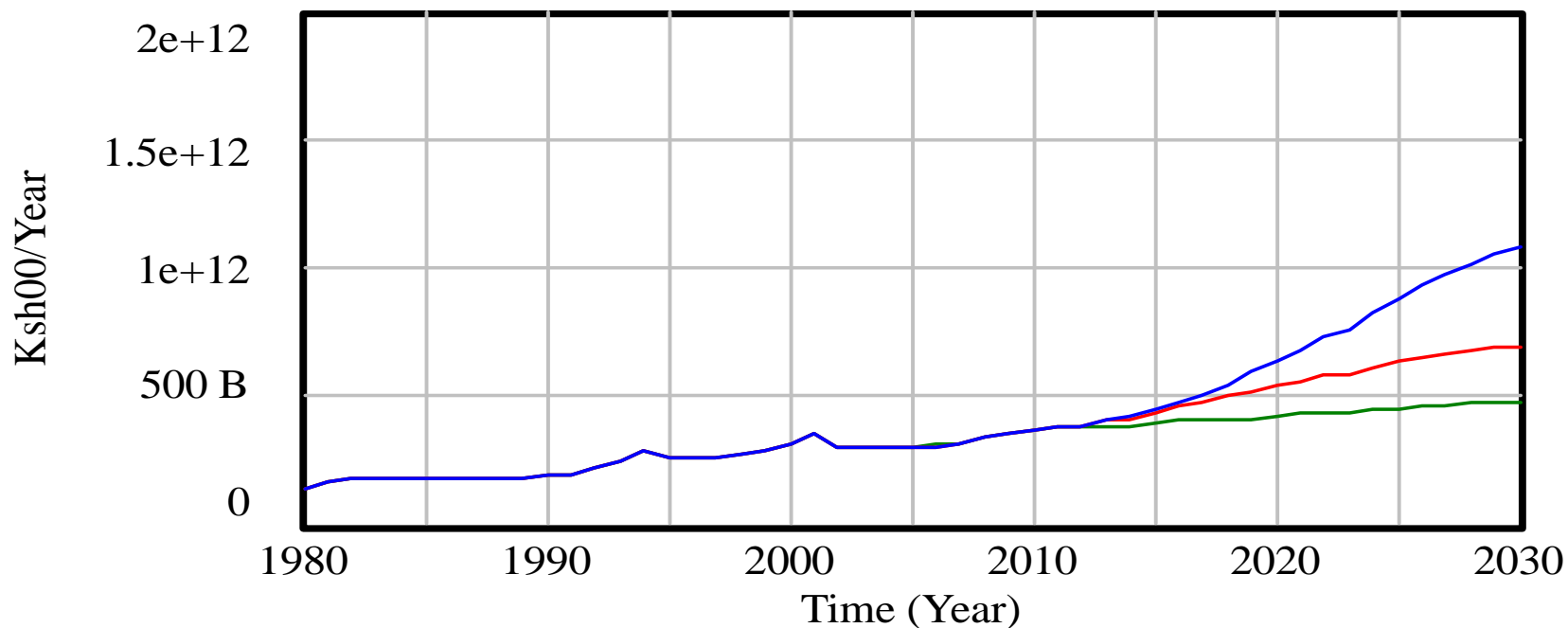
real gdp m p grow th ra te : BA U2% \_\_\_\_\_

real gdp m p grow th ra te : BA U \_\_\_\_\_



# Agriculture Production

agriculture production



agriculture production : GE2%

agriculture production : BAU2%

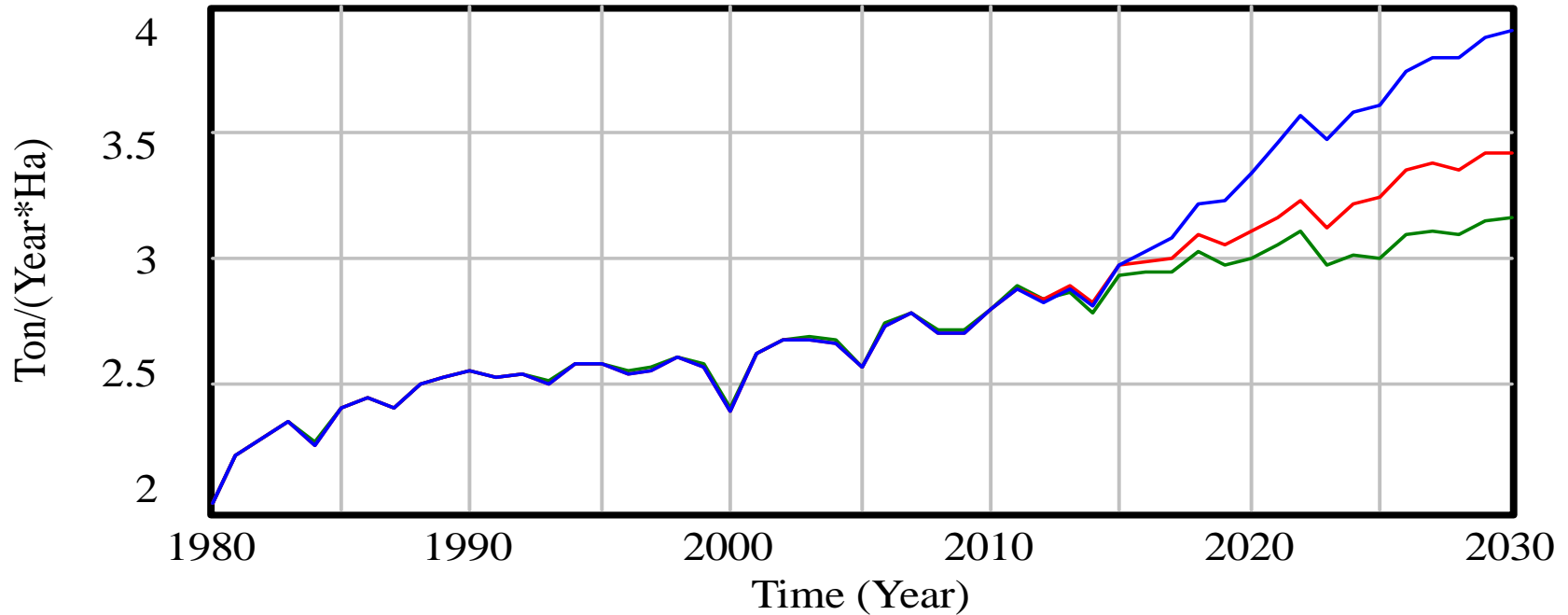
agriculture production : BAU





# Average Yield

average yield



average yield : GE2%

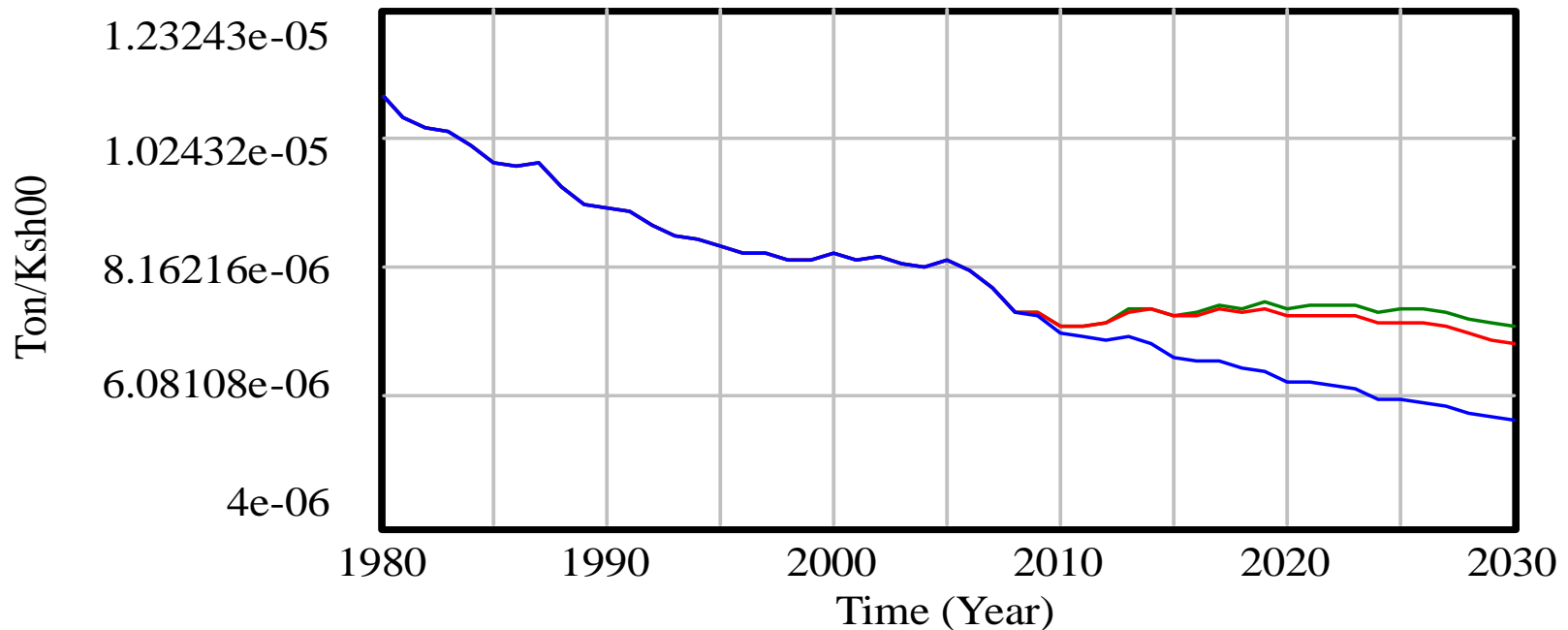
average yield : BAU2%

average yield : BAU



# CO<sub>2</sub> intensity of GDP

co2 intensity of gdp



co2 intensity of gdp : GE2%

co2 intensity of gdp : BAU2%

co2 intensity of gdp : BAU



# Conclusions

Transition to GE - Higher long-term economic growth, high productivity and cleaner environment:

- Positive economic returns expected after approx 7-10 years;
- National GDP projected to exceed baseline by 6-19% in 2030;
- Real per capita national income USD 675-755 (BAU 400-600) in 2030;
- Agricultural production exceed baseline by at least 23%, compared to BAU scenarios; and
- CO2 emissions 15% lower than BAU.



*Thank You!*