Importance of climate science in making climate smart investment decisions

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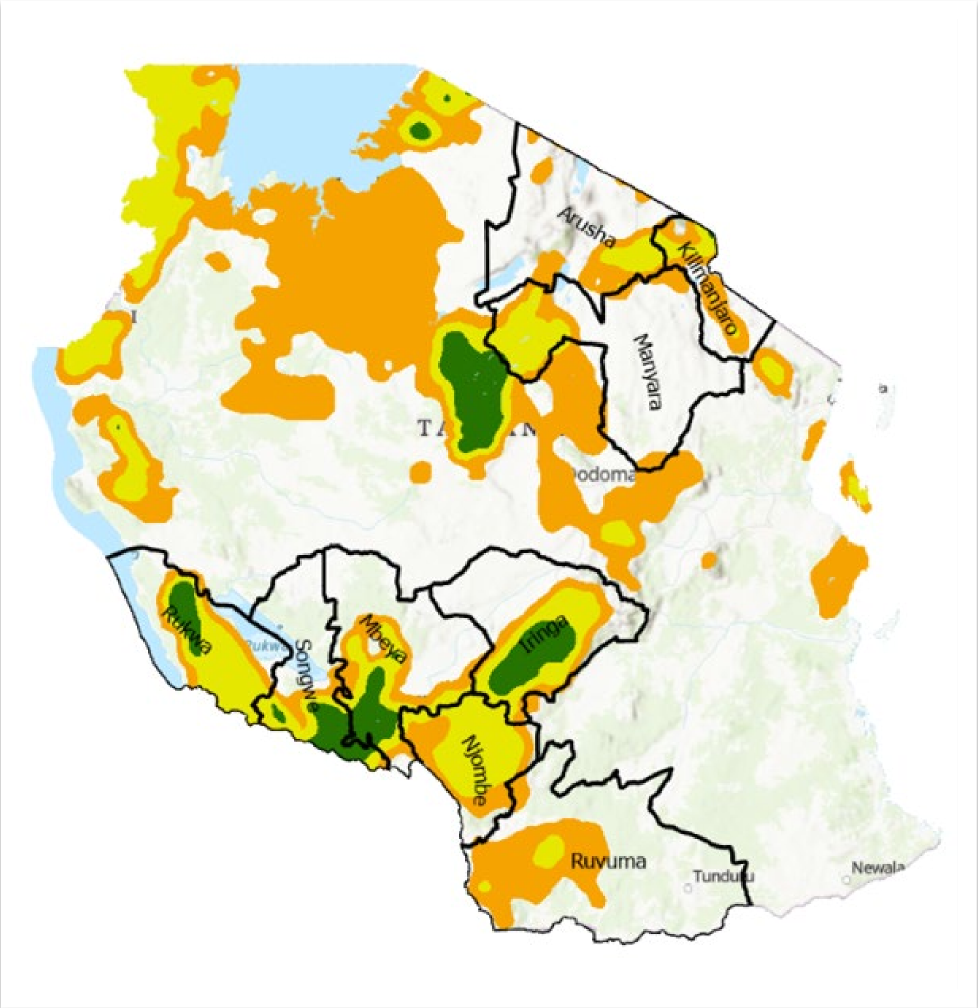
Climate science in CRAFT: example

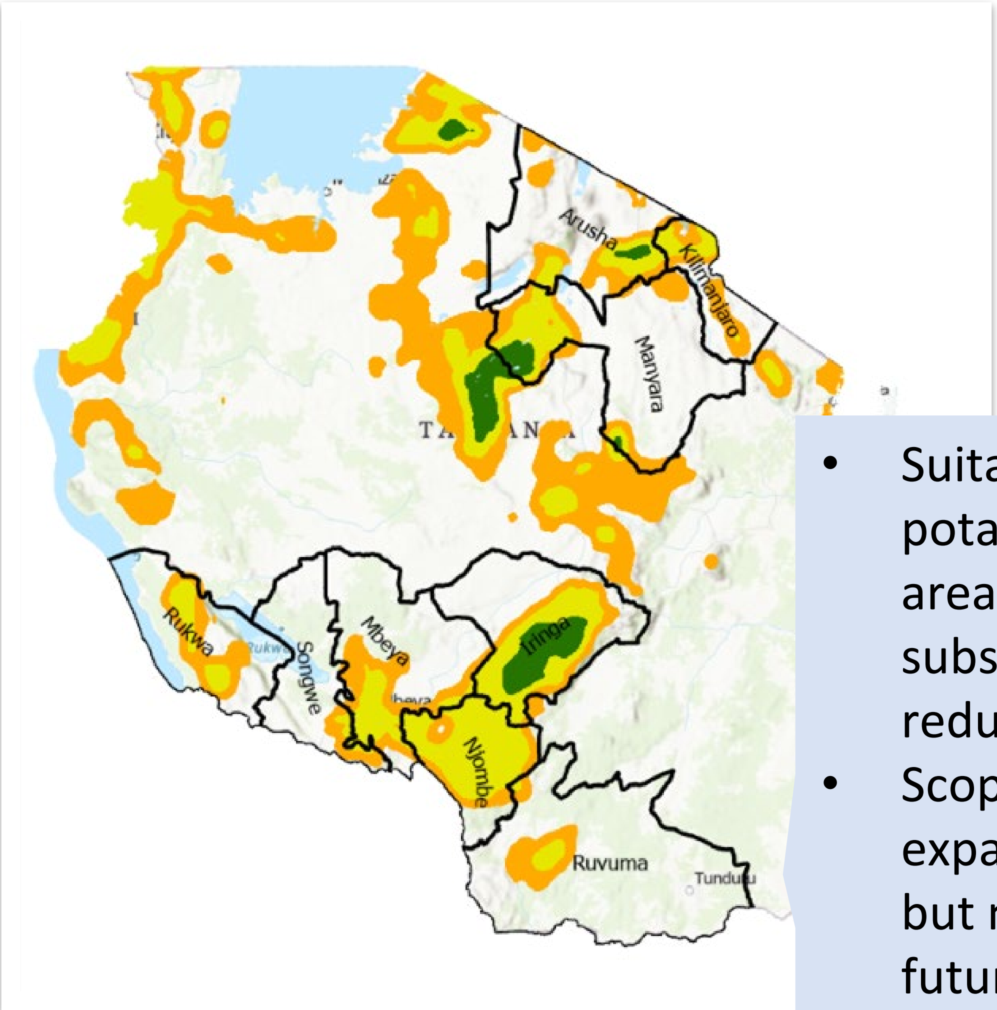
Use of climate science
to mobilise climate finance by local banks

Potato suitability in a changing climate, Tanzania

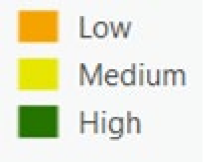
Suitability under baseline climate



Suitability under RCP8.5 in 2041 - 2070



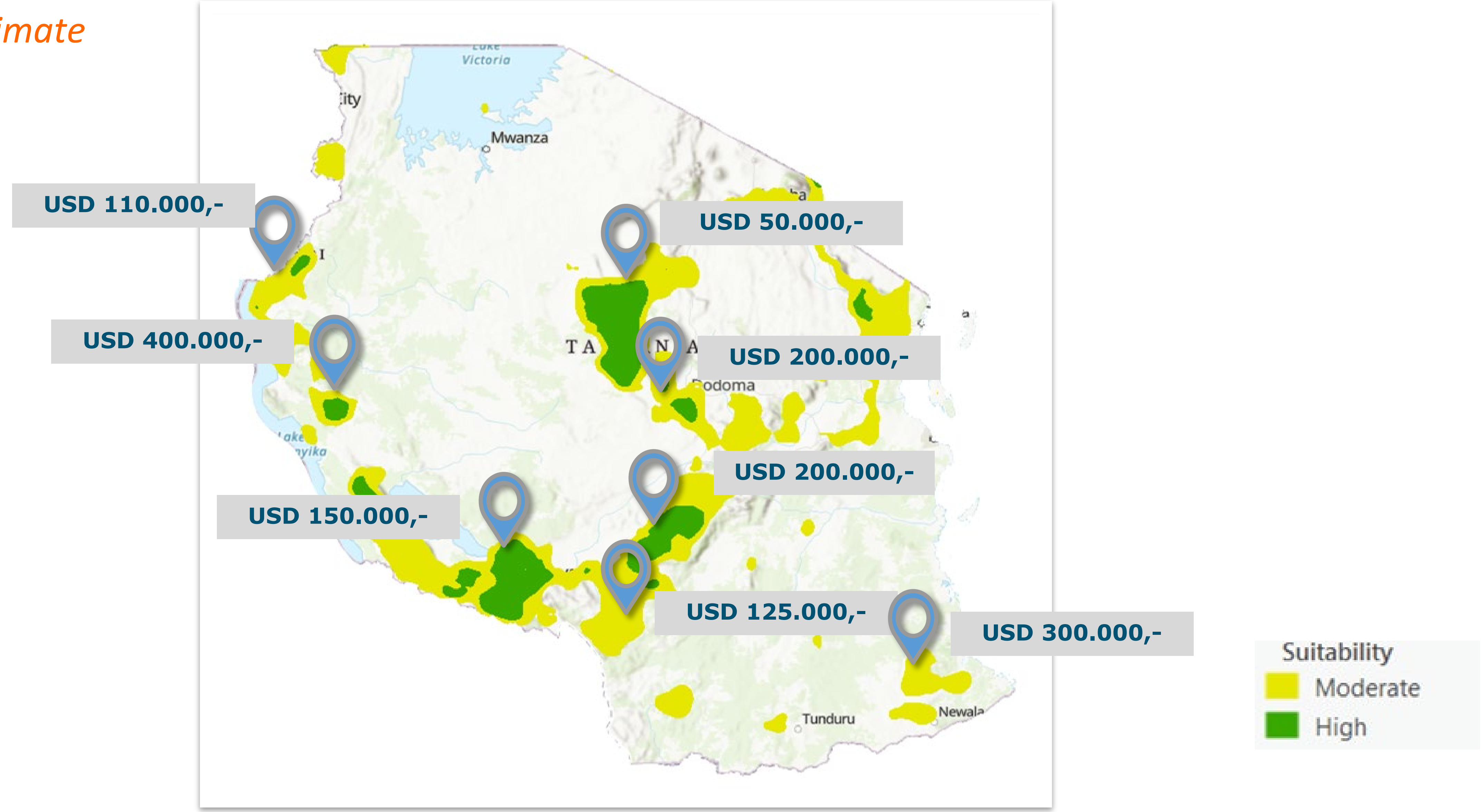
Suitability



- Suitability in key potato growing areas will be substantially reduced
- Scope for expansion now, but not in the future

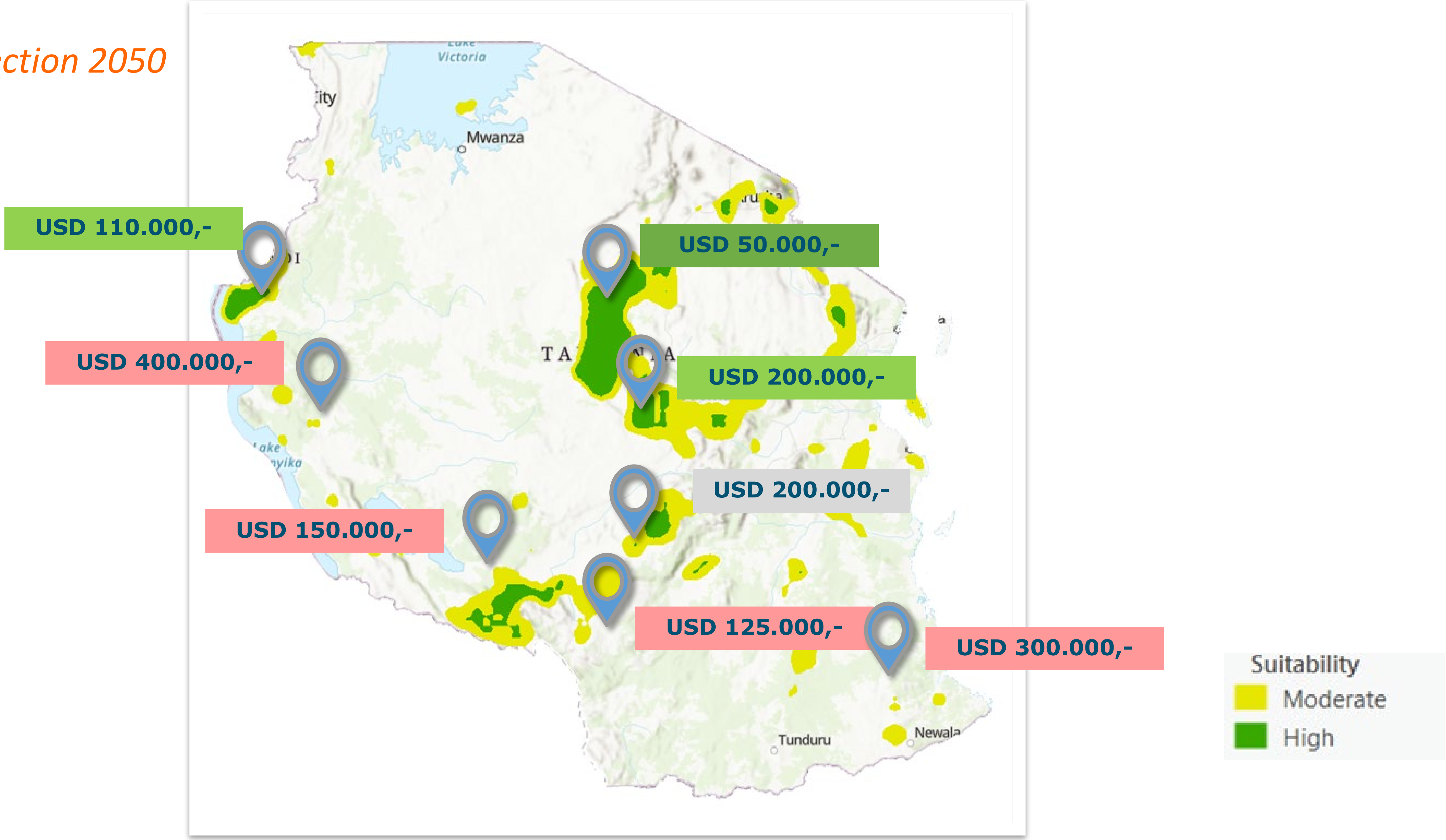
Investment portfolio under current climate, potato Tanzania

Current Climate



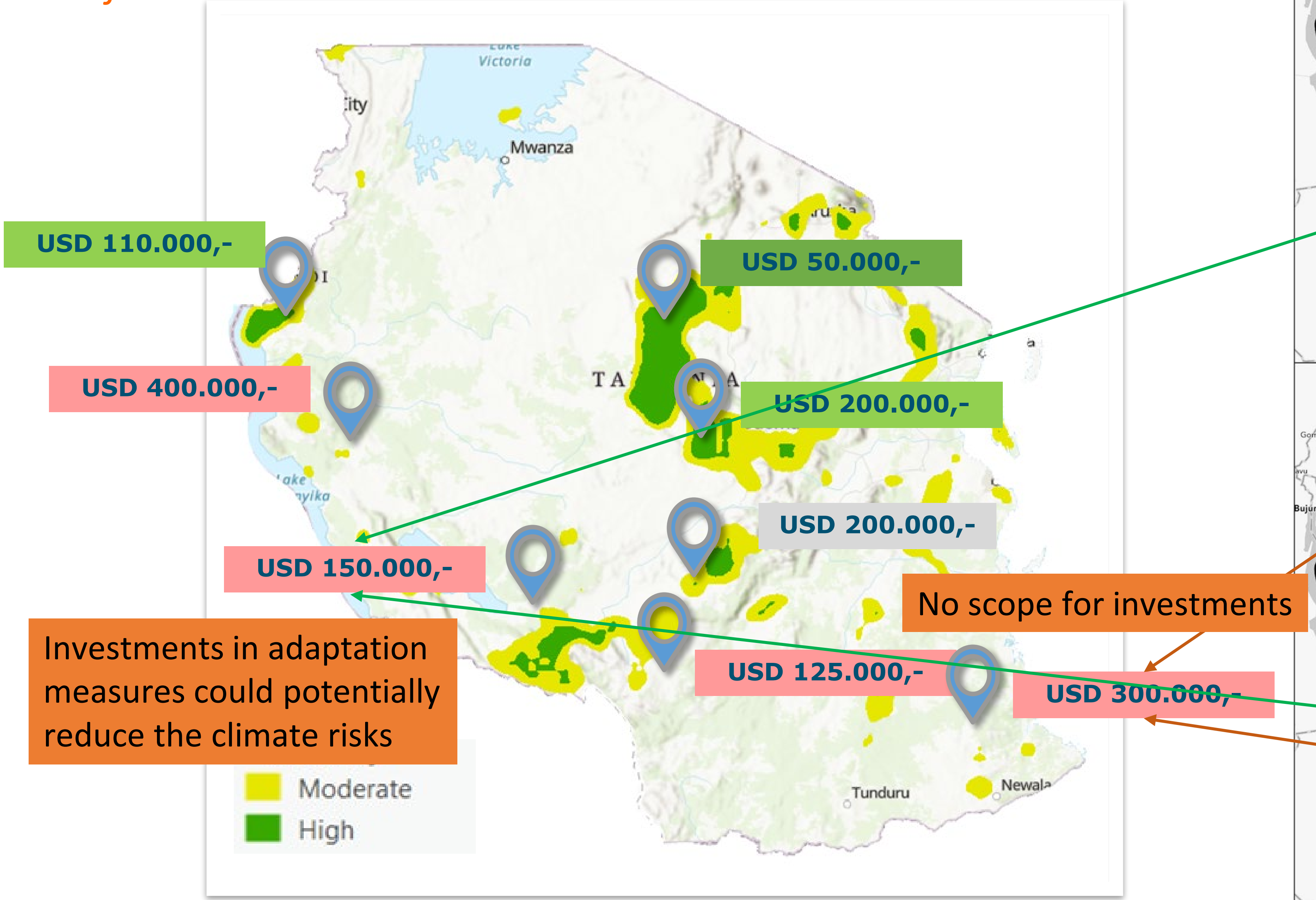
Investment portfolio at risk due to climate change, potato Tanzania

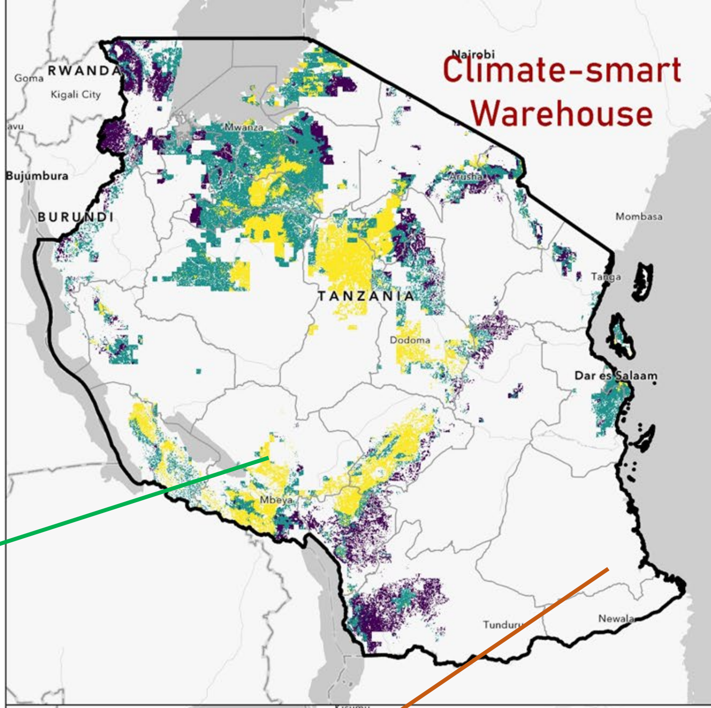
Climate Projection 2050

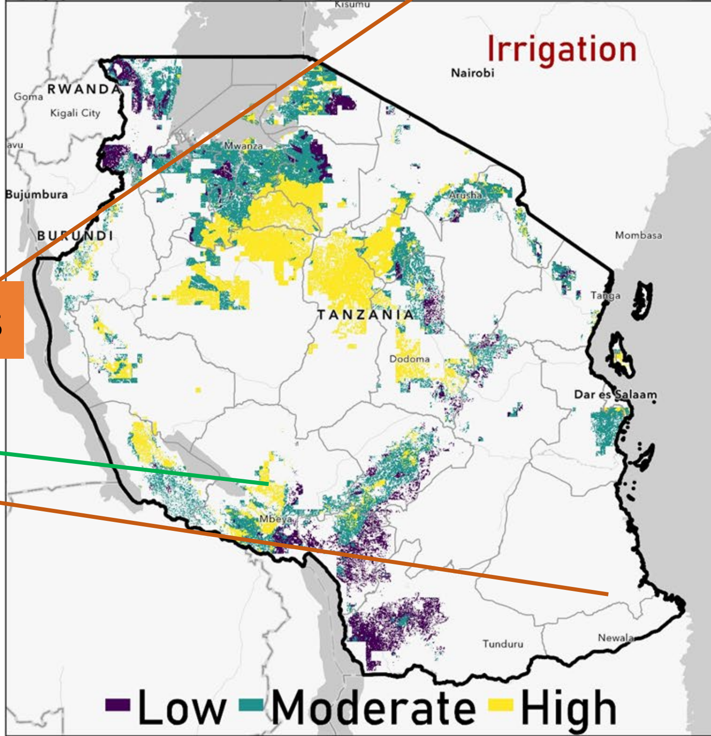


Potential investment in adaptation: potato Tanzania

Climate Projection 2050

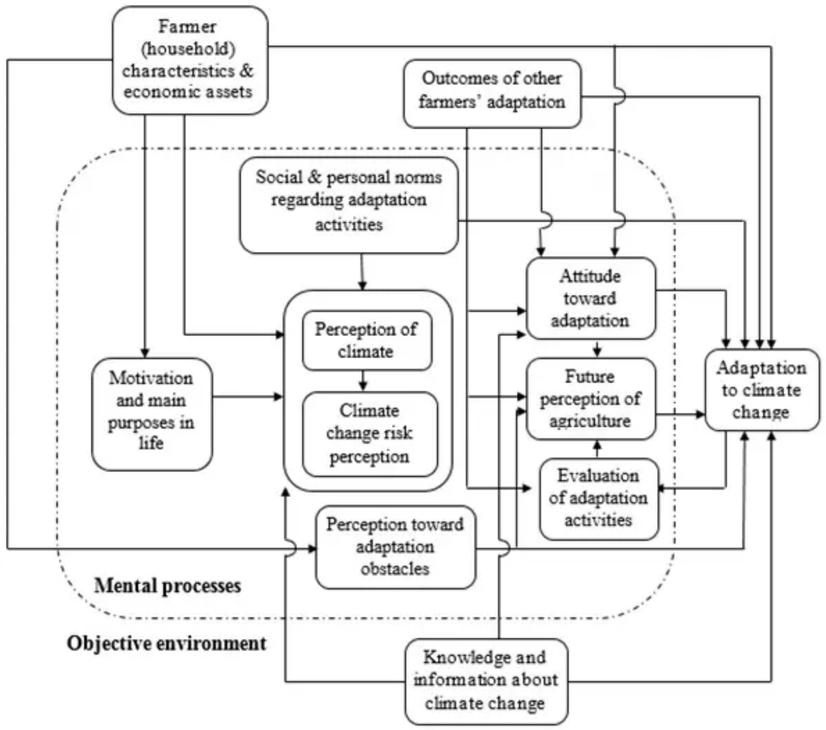






Climate science in CRAFT: 2nd example

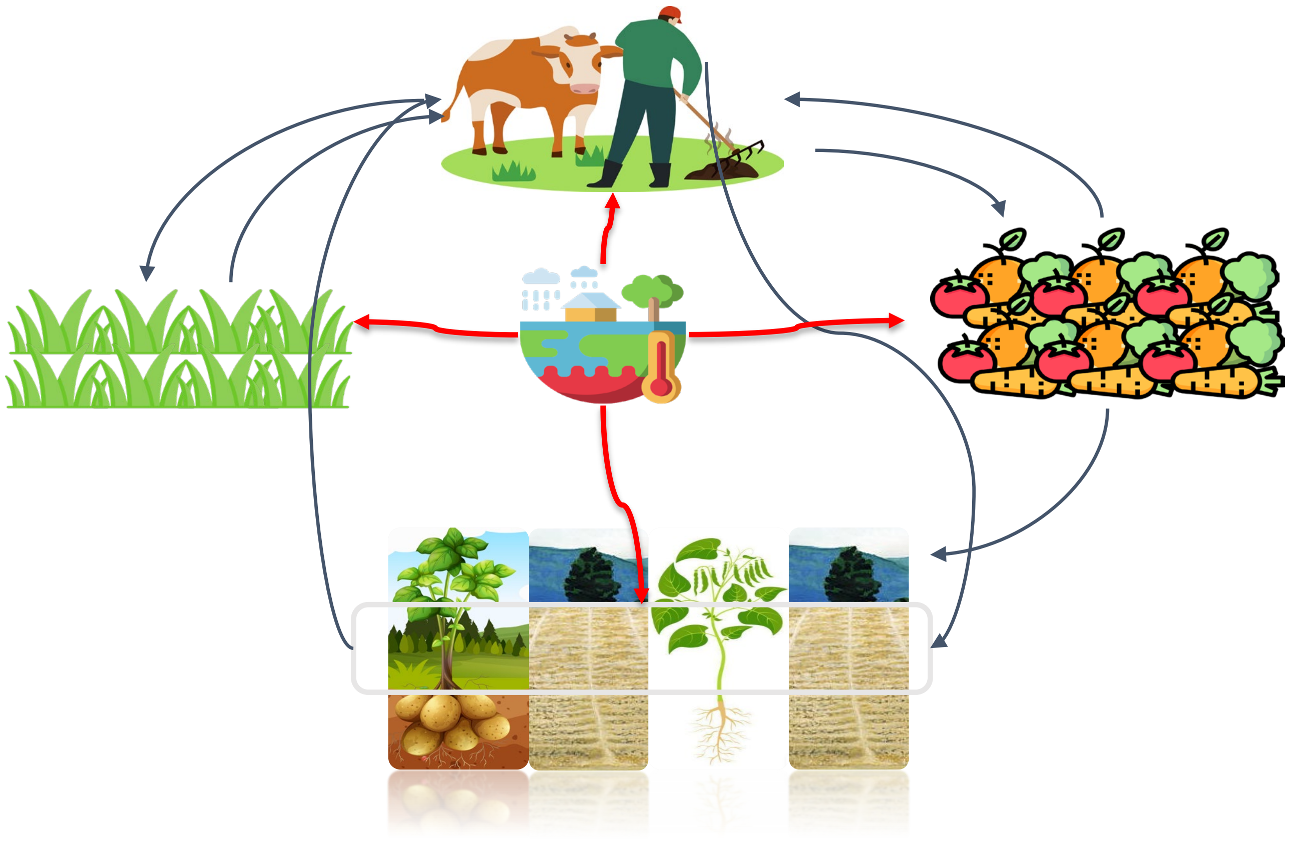
Support farmers in making climate smart investment decisions (work in progress)



Azizi-Khalkheili, T., Aenis, T., Menatizadeh, M., Zamani, G. H. (2021)

Cropping system in Kigezi region, Uganda

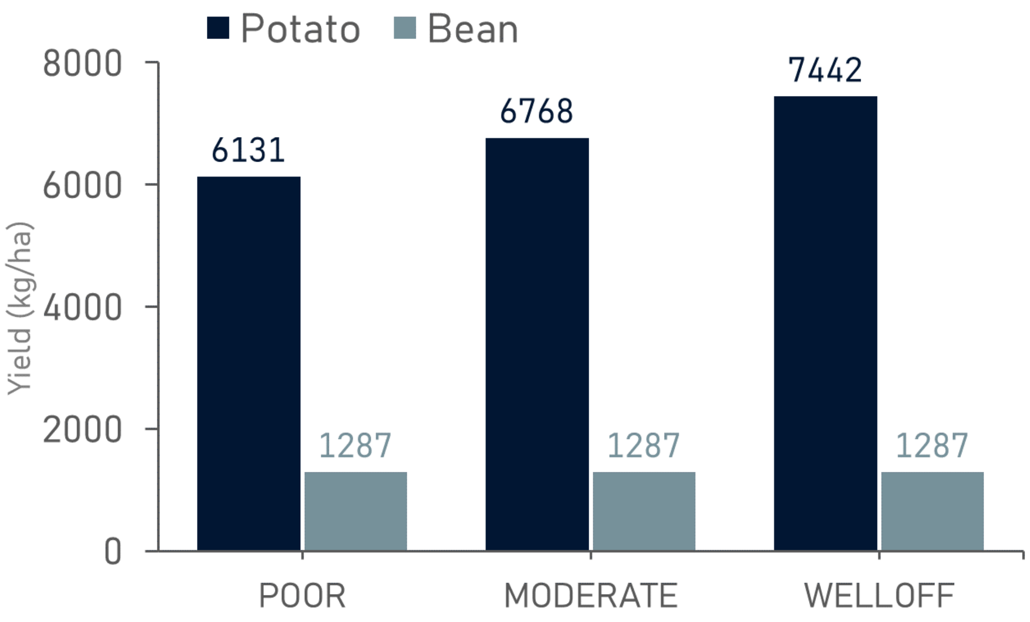
Impact of climate change – potential of adaptation measures to mitigate risks (Uganda)



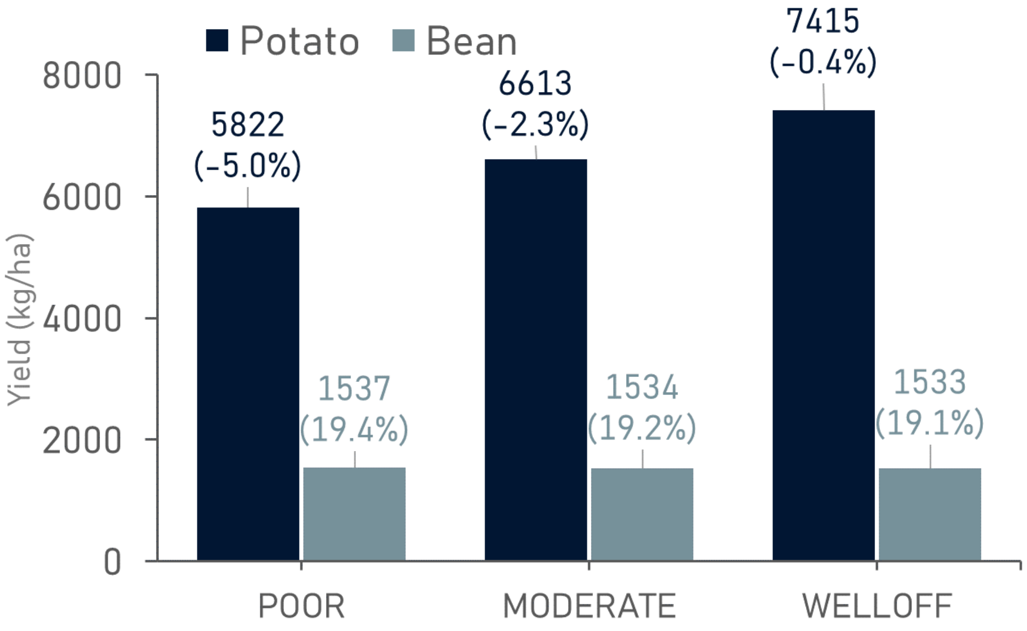
Cropping system (example)	
January – February	**FALLOW**
March –April-May	**POTATO**
June – July – August	**FALLOW**
Sept-October – November	**BEAN**

Impact of climate change on potato - bean cropping system in various households (poor-moderate-well off)

Potato and bean yields in the current situation

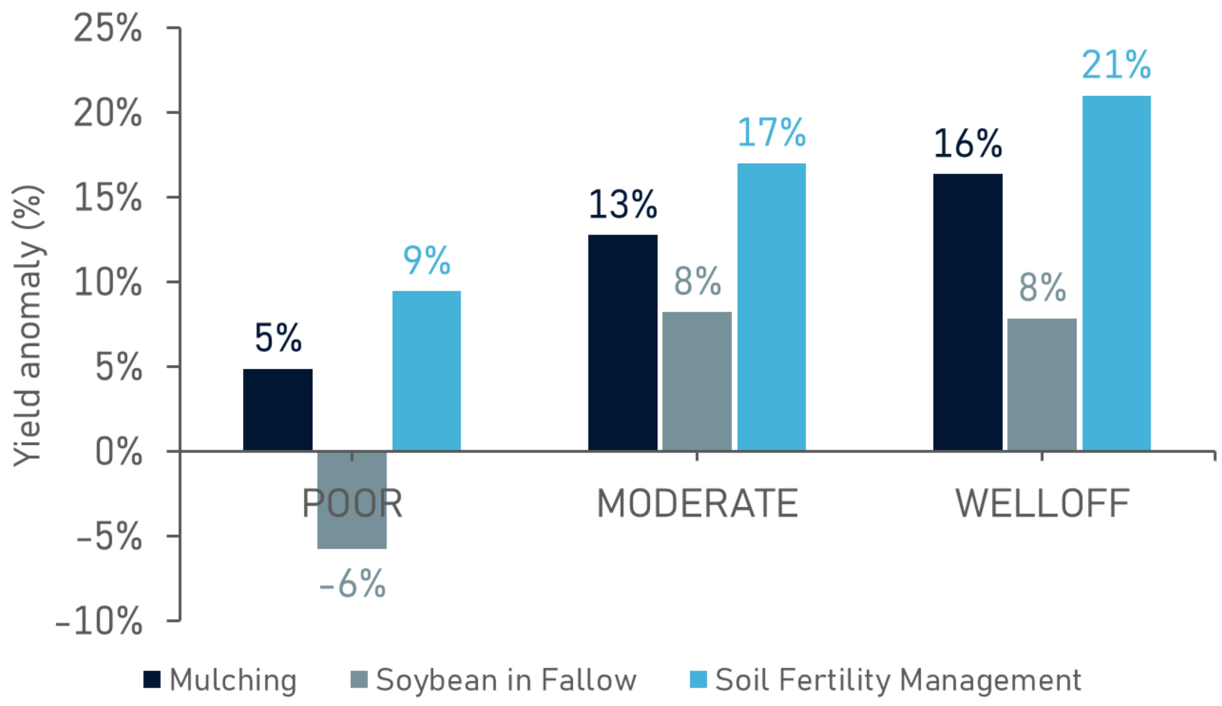


Potato and bean yields in the future under climate change

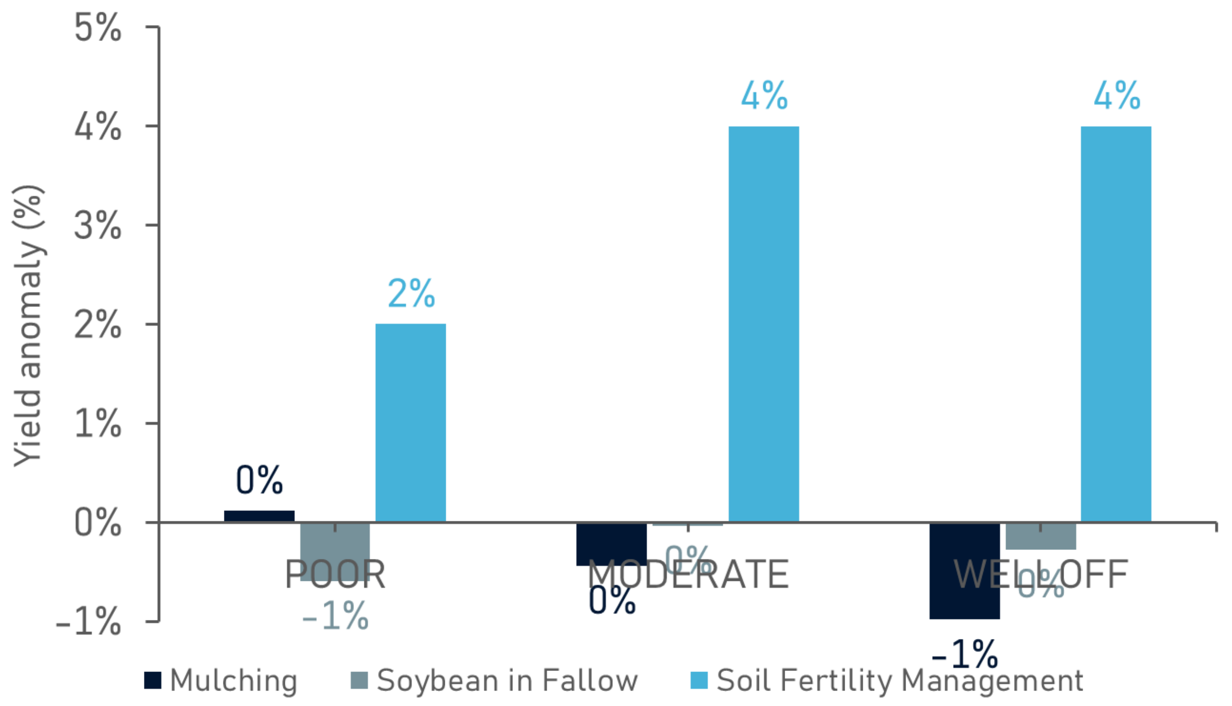


Impacts of adaptation measures on potato-bean cropping systems in various households (poor-moderate-well off)

Potato



Bean



Supporting climate smart adaption decision making: next steps

Soybean in fallow

1. Low cost
2. Fix soil nitrogen
3. High nutrient competition with potato

Mulching

1. Moderate cost
2. Reduce evaporation
3. Increase water use efficiency

Soil fertility management

1. High cost
2. Improves soil fertility
3. Increase nutrient use efficiency

Conclusion

Climate science can play a promising role in making climate smart investment because it shows:

- **Financial institutions** where their investment portfolio is at risk in future due to climate change
- **Financial institutions** the potential of investing in climate adaptation to mitigate these risks
- **Farmers** the impact of climate change on their cropping system and the potential of adaption measures to mitigate reduction in yield

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