# CRIDF event at WWW

## Socio-economic Assessment of flood risk management options

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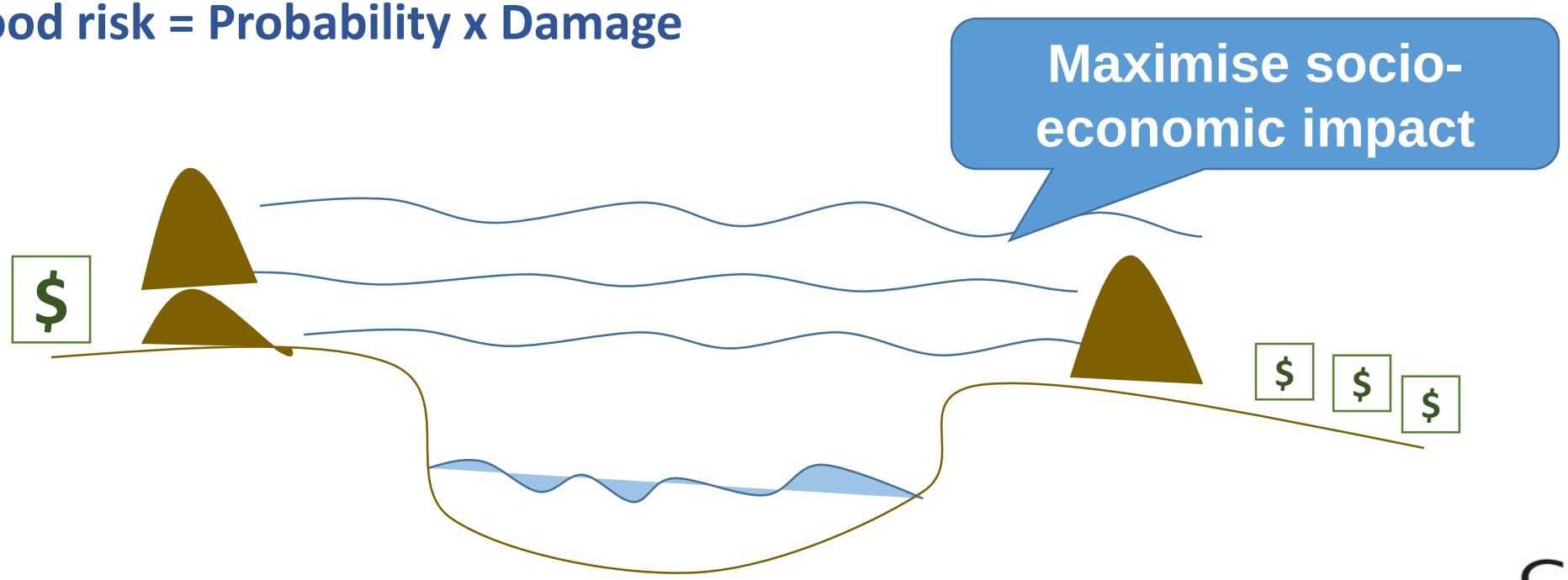
# Investment: Flood Risk Model (& Management Strategy) for the Lower Incomati River Basin

- **Purpose: Manage flood risk in the Lower Incomati basin**
- **Economic benefit of decreased flood risk from the perspective all stakeholders**
- **Flood risk = Probability x Damage**

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# Economic benefits of flood risk management

| **Probability** | |
|---|---|
| Effective (in/decreased) flood prevention expenditure | Targeted and aligned flood prevention investments - public infrastructure; social services; areas of high economic productivity |
| **Damage** | |
| Decreased catastrophic damages | Loss of life; public infrastructure; social services; areas of high economic productivity |
| Manage damage to large estates | Multipliers – national & local economies |
| Manage damage to smallholders & outgrowers | Multipliers – national & local economies |
| Manage physical & economic damage to local communities | Increased resilience |

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# Baseline of costs/benefits to whom – informs level of investment & support from whom

- **High-level basis to assess recommended flood risk management strategies & interventions**
- **Provides indication of which stakeholders may have an interest in funding what interventions**

**CRIDF perspective: How can we achieve the 'pro-poor' and 'resilience' potential of a basin strategy?**

best socio-economic solution is the one that shares both the risks and benefits between the private sector sugar industry and their outgrowers – and in addition this has real benefits for other low income stakeholders in the catchment.

Reducing the vulnerability of poorer communities may not be immediately discernible from a macro-economic perspective, but will provide the greatest benefit to the largest number of people"

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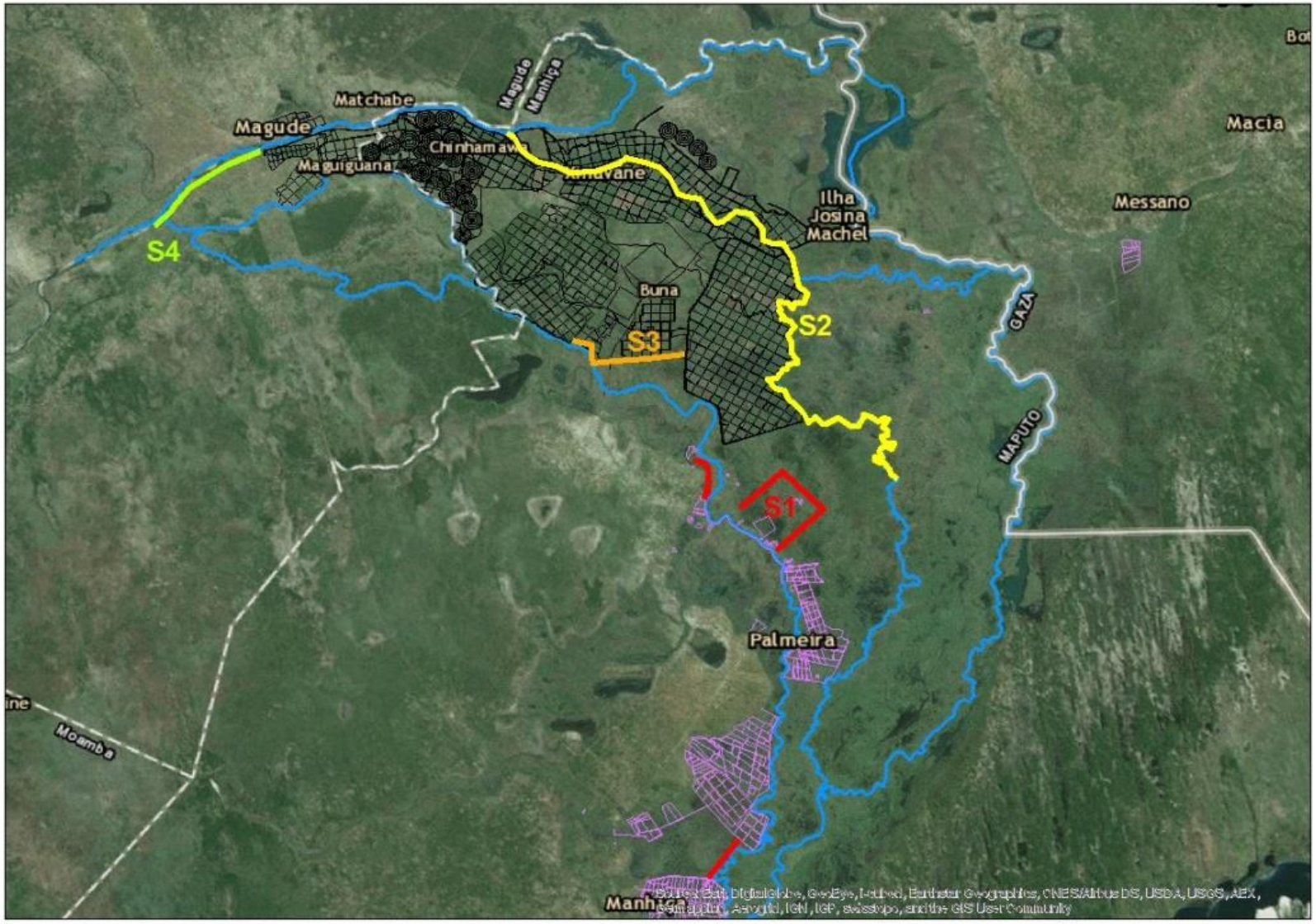
# Flood Risk Management Infrastructure Options




# Conclusions\ Recommendations

- The Lower Incomati Basin is particularly vulnerability to climate change and transboundary management challenges : project is highly transboundary
- For the majority of the population are poor and largely reliant on subsistence, making them particularly vulnerable to the increasing occurrence of water shocks transboundary approach will significantly increase no. of poorer communities having benefits, less vulnerability to floods\ also start building blocks for drought issues

The use of a Cost Benefit Analysis (CBA), and results shows that expansion of outgrowers very worthwhile and in keeping principles of climate resilient, pro-poor development

- The indicative CBA , indicate that both investments (S1 and S4) are economically and have significant economic benefit for ALL parties.

| Indicator | Flood Bund Location for Outgrowers Option S1 | Flood Mechanism u/s of Tongaat Option S4 | Comparison |
|---|---|---|---|
| Net Present Value | USD 2.1 Million | USD 1.0 Million | S1 > S4 |
| Benefit Cost Ratio | 2.17 | 2.67 | S4 > S1 |
| External Rate of Return | 33% | 42% | S4> S1 |