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The Power of Local Economy Multipliers: Synergies between Social Protection and Agricultural Interventions in Malawi

organised by

ILO, FAO, UNICEF, Government of Malawi

socialprotection.org presents:

The Power of Local Economy Multipliers: Synergies between Social Protection and Agricultural Interventions in Malawi

Presenter:
Justin Kagin, Kagin's Consulting

Discussants:
Noemi Pace, FAO
Lukes Kalilombe, Government of Malawi
Dominic Nkhoma, Government of Malawi

Moderator:
Luca Pellerano, ILO Zambia

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The Power of Local Economy Multipliers: Synergies between Social Protection and Agricultural Interventions in Malawi

Moderator

Luca Pellerano - Advisor on Social Security, ILO Zambia

Dr. Luca Pellerano is a development economist with comprehensive experience in social protection policy design, programme implementation and evaluation. He is currently an advisor on social security for the International Labour Organization (ILO) for Zambia, Malawi and Mozambique. Prior to joining the ILO Luca was a Senior Consultant and leader of the Poverty and Social Protection team at Oxford Policy Management (OPM) and a Research Economist at the Centre for Evaluation of Development Policies (EDePo) at the Institute of Fiscal Studies (IFS) in London. He provided technical assistance to the desing, implementation and evaluaiton of social protection/social security strategies and programmes in Mozambique, Zambia, Malawi and Lesotho.

The Power of Local Economy Multipliers: Synergies between Social Protection and Agricultural Interventions in Malawi

Presenter

Justin Kagin - Owner and Founder, Kagin's Consulting

Justin Kagin holds a Master's and a Ph.D. on Agricultural and Resource Economics from the University of California, Davis. He is also the owner and founder of Kagin's Consulting. Kagin's Consulting is a development consulting firm that aims to alleviate poverty worldwide and specializes in local-economy wide impact evaluations, poverty analysis including multidimensional poverty among excluded groups, small-holder farmers, nutrition economics, and financing innovations for aiding the poor.

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Discussant

Noemi Pace, Economist Consultant, FAO

Noemi Pace is Assistant Professor at the Department of Economics, University Ca' Foscari of Venice and Economist (consultant) at the Food and Agriculture Organization (FAO) of the United Nations. At FAO she is a member of the social protection analytical team in the Social Policies and Rural Institutions Division where she conducts impact evaluation analysis of social protection and agricultural interventions. She is also research fellow at the UCL Centre for Global Health Economics, research fellow at the Center for Economic and International Studies (CEIS) at University of Rome Tor Vergata, and Adjunct Research Associate at the Center for Health Policy, Stanford University.

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Discussant

Lukes Kalilombe

Deputy Director at Ministry of Finance, Planning and Information

Government of Malawi

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Discussant

Dominic Nkhoma

Chief Economist, Ministry of Agriculture, Irrigation and Water Development

Government of Malawi



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The Power of Local Economy Multipliers: Synergies between Social Protection and Agricultural Interventions in Malawi

Social Protection Presentation
31 May 2018

Introduction

- Simulate cost-benefit analyses of alternative design options for standalone as well as different combinations of social protection and agricultural programmes in Malawi

- Brings together priorities of Malawi National Social Support Programme (MNSPP) and Ministry of Agriculture, Irrigation and Water Development (MoAIWD)

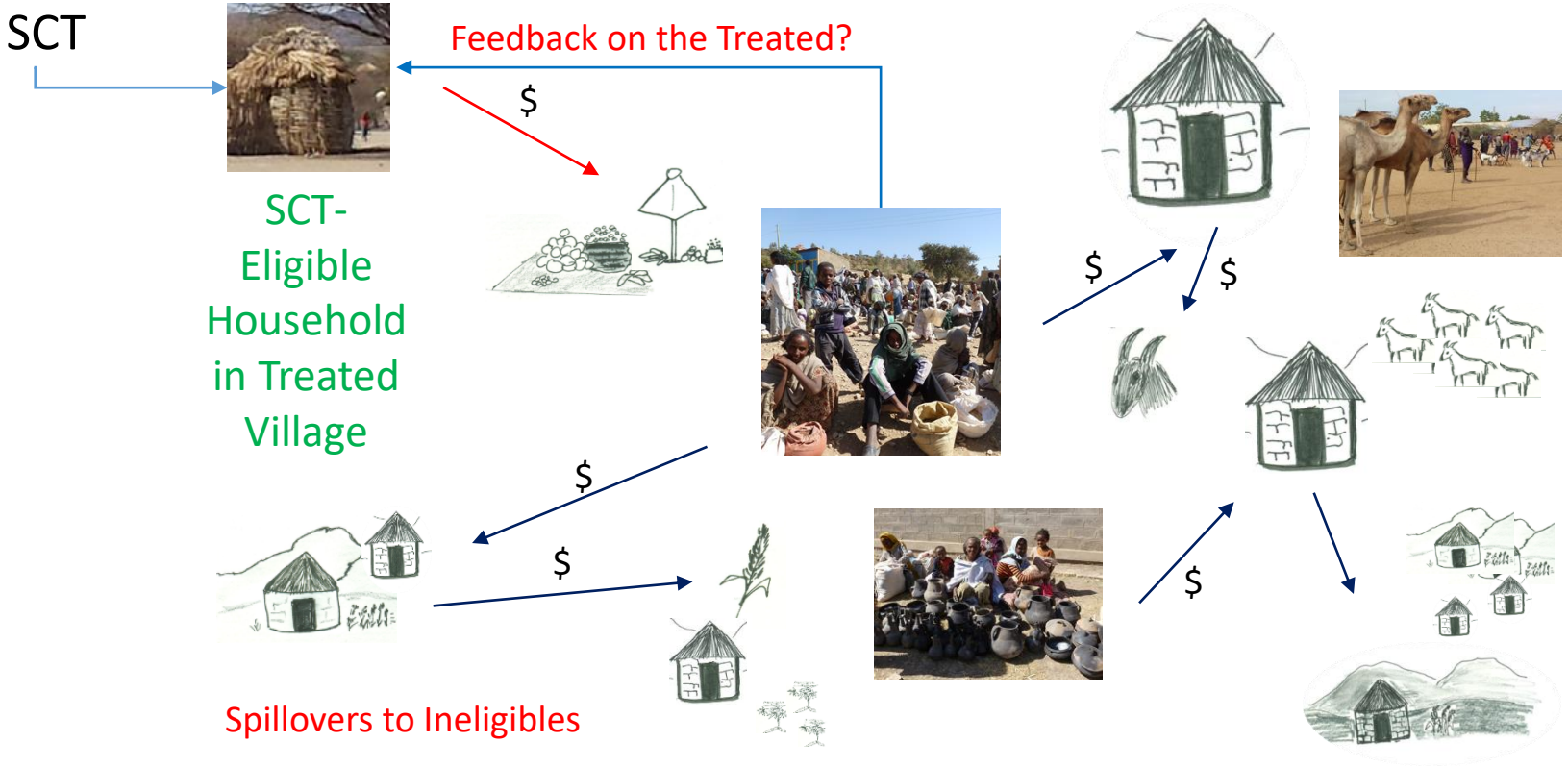
- Asks what could be the most effective policy scenario for:
  - Supporting the poorest households
  - Increasing agricultural production
  - Stimulating economic growth
  - Reducing poverty and inequality

Methods

- Local Economy-Wide Impact Evaluation (LEWIE)
- Cost-Benefit Analysis (CBA)

LEWIE includes spillovers to non-beneficiaries

- Most evaluations focus on beneficiary households
  - (e.g., impacts of social cash transfers, SCTs, on eligible poor households)
- They are a conduit through which cash enters local economies
- The whole local economy, then, becomes a beneficiary of the programme
  - …including those who do not get transfers


SCT
Feedback on the Treated?
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SCT-Eligible Household in Treated Village
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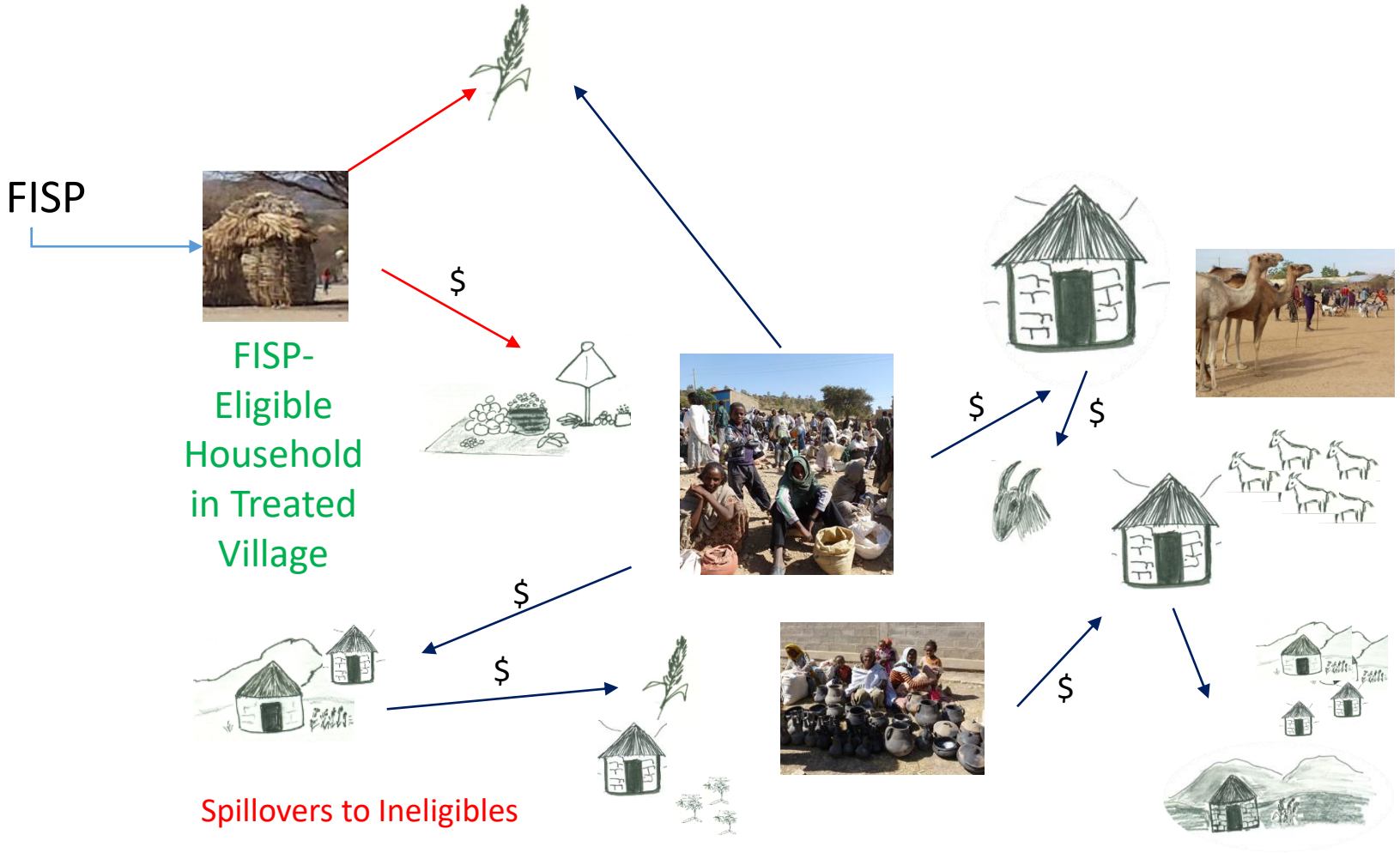
Spillovers to Ineligibles


FISP
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FISP-
Eligible
Household
in Treated
Village
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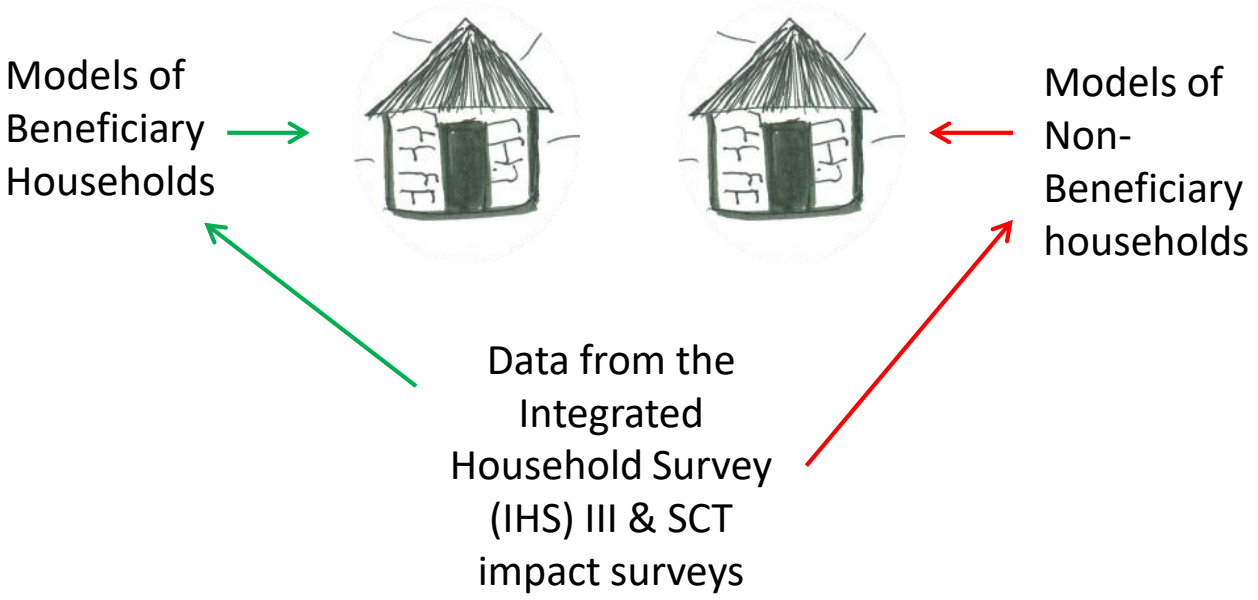
Spillovers to Ineligibles

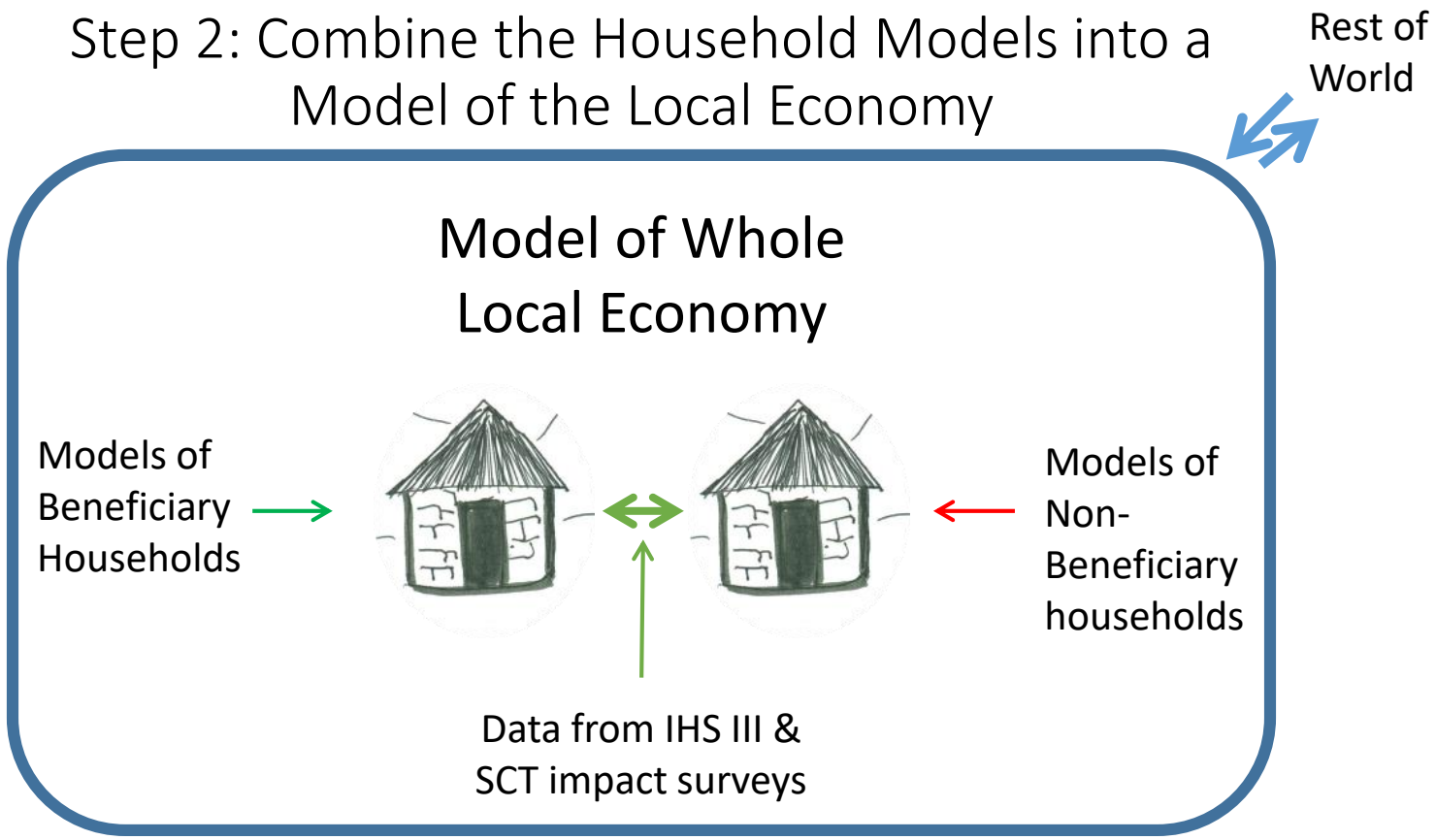
How To Make a LEWIE Model

Step 1: Build Models of Beneficiary and Non-beneficiary Households (May Be Many)

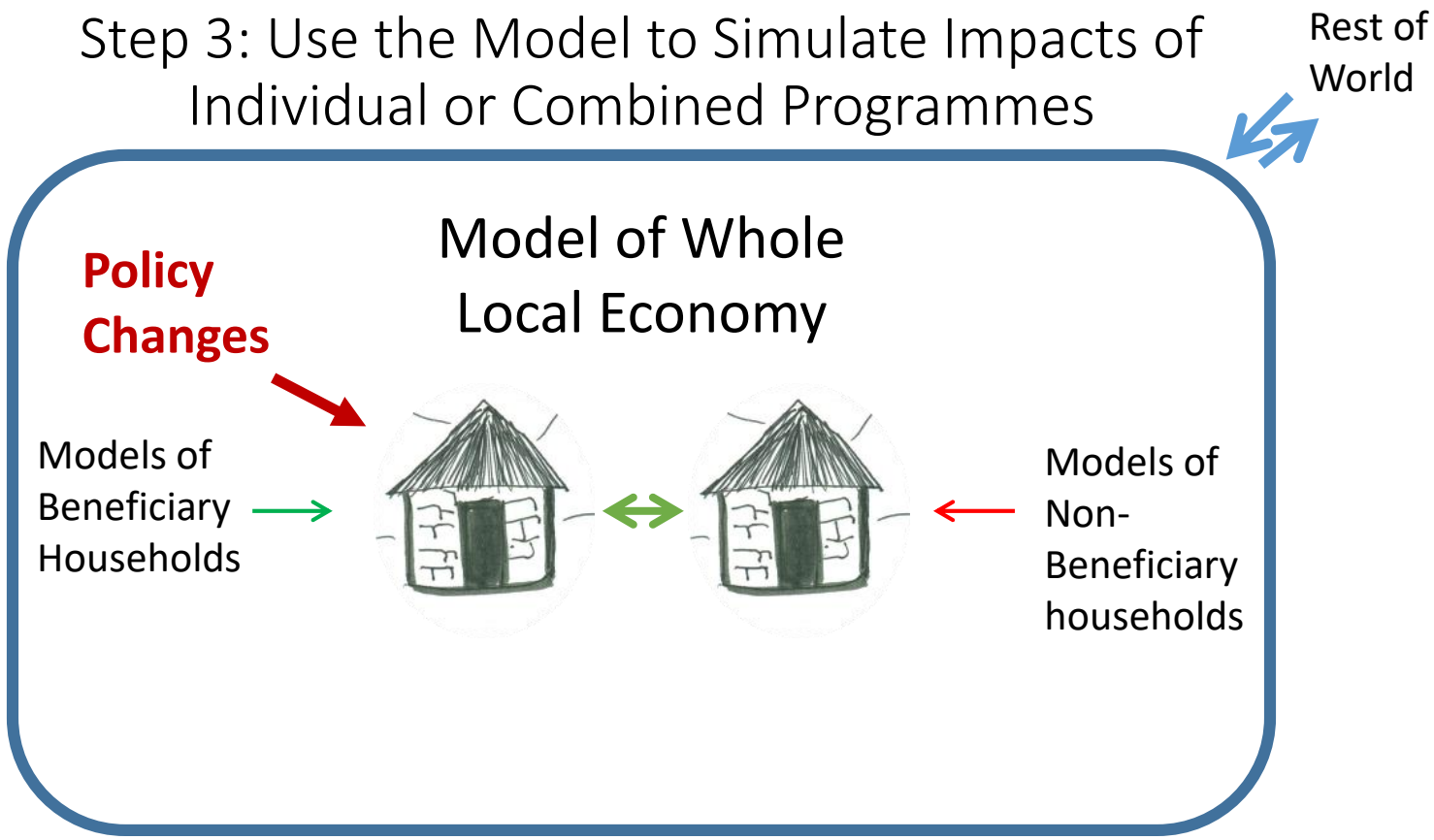
Rich tradition of household-farm modeling in development economics



Step 2: Combine the Household Models into a Model of the Local Economy



Step 3: Use the Model to Simulate Impacts of Individual or Combined Programmes

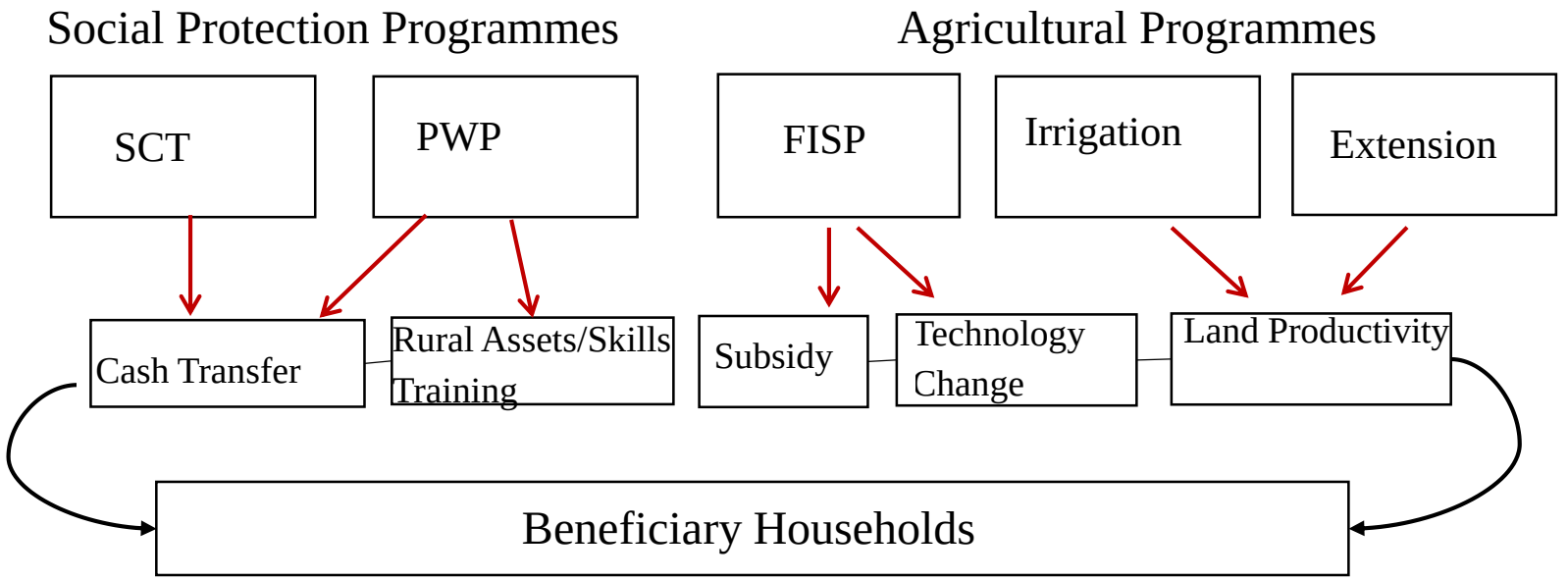


How do people spend their money? How do they produce?

Sector/Factor	Non-poor		Moderately Poor				Ultrapoor			
	Unconstrained Labor		Unconstrained Labour	Constrained Labour	Unconstrained Labour	Constrained Labour	Unconstrained Labor		Constrained Labor	
	1.5 acres or more	< 1.5 acres	Land >= 1.5 acres	Constrained labour and land >= 1.5 acres	Unconstrained labour and land < 1.5 acres	Constrained labour and land < 1.5 acres	Land >= 1.5 acres	Land < 1.5 acres	Land >= 1.5 acres	Land < 1.5 acres
	A	B	C	D	E	F	G	H	I	J

Most of the expenditures are on local crops and retail shops. Production of crops is more labour intensive for the ultra-poor. . .

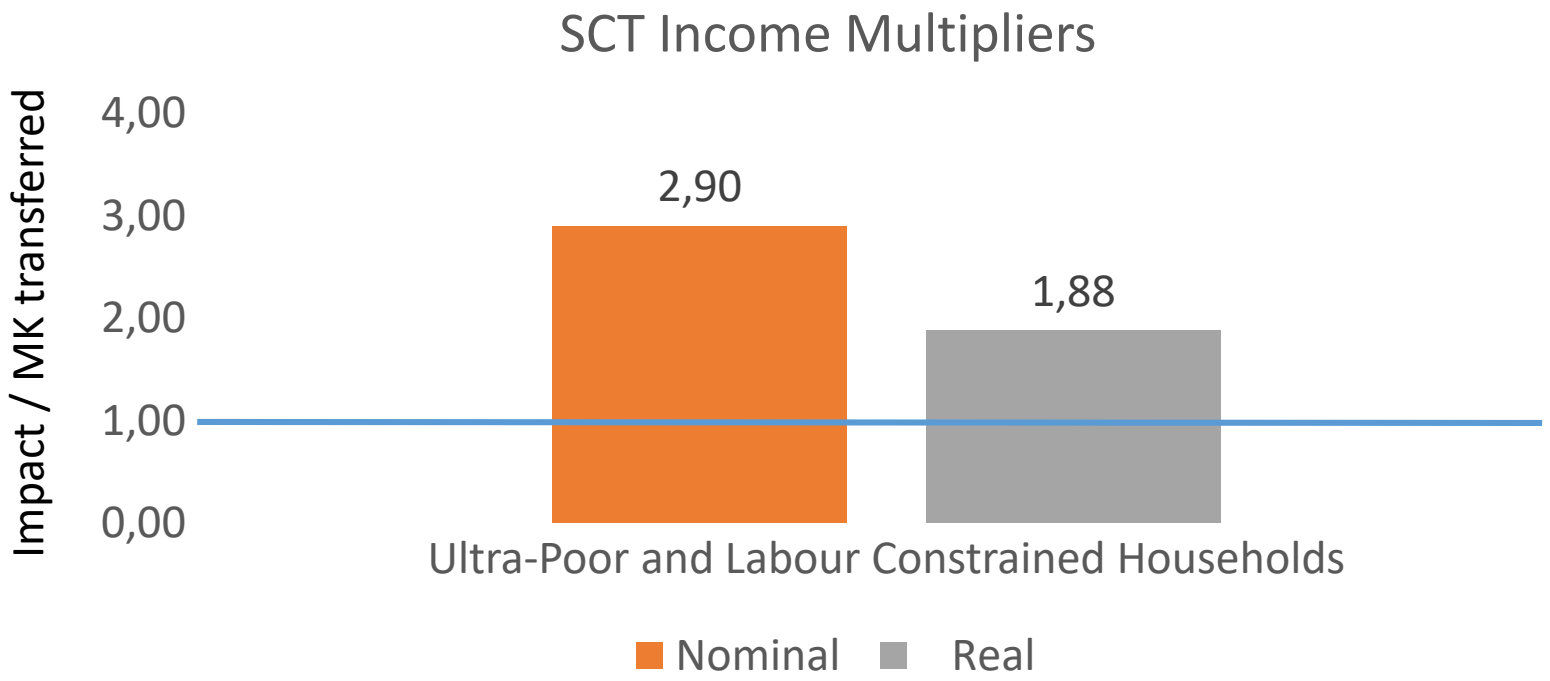
Malawi LEWIE Analysis



Measure impacts per kwacha spent, CBA, & Poverty/Inequality

- For each simulation and combination of simulations we looked at:
  - **Income effects –** Nominal (without price changes), real (with price changes).
  - **Production effects**
  - **Cost-benefit analysis** (CBA) including CBA of combined programmes. This includes the administration and other costs associated with the programmes.

SCTs - A kwacha transferred to a poor household raises local income by significantly more than a kwacha



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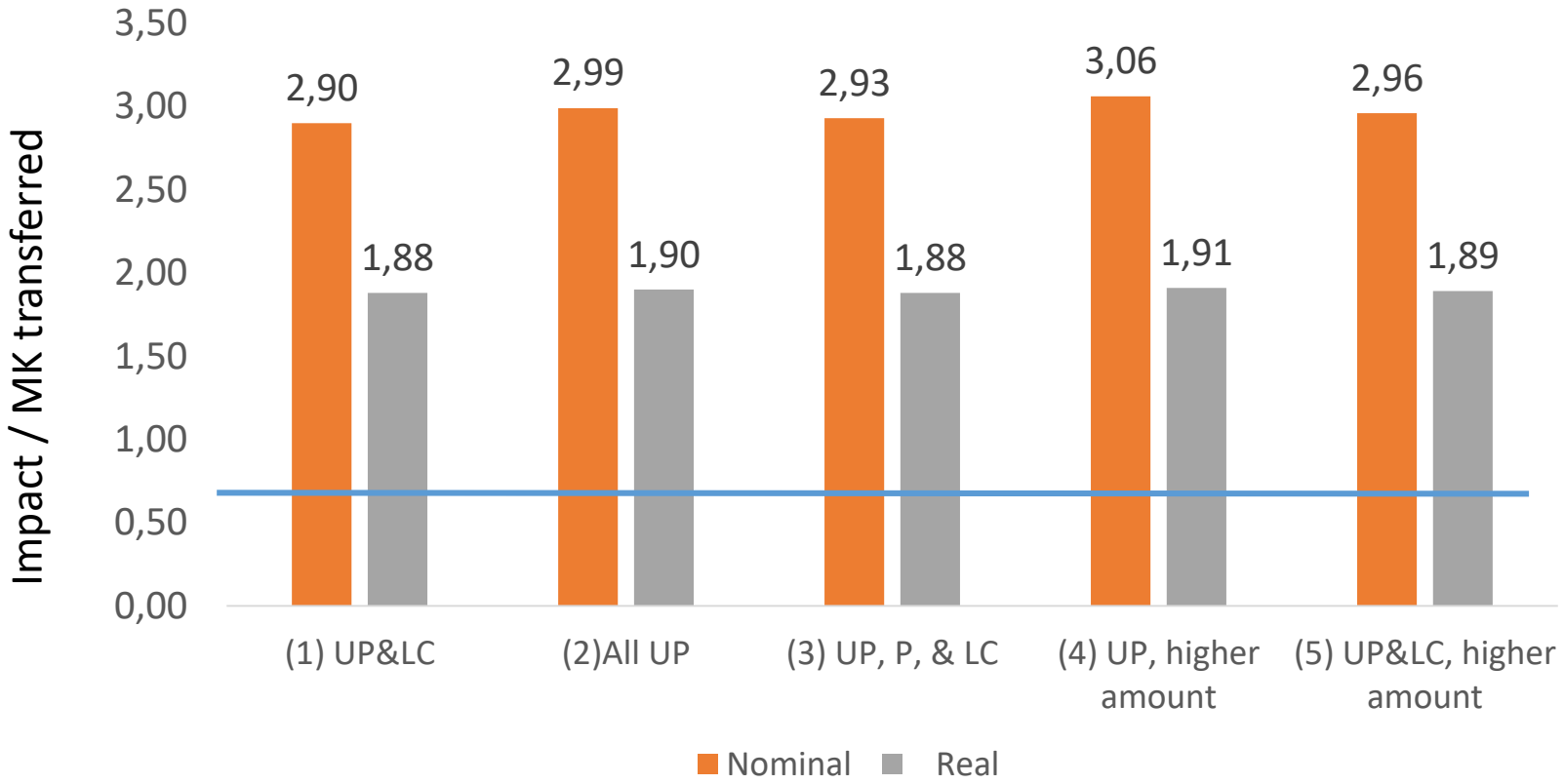
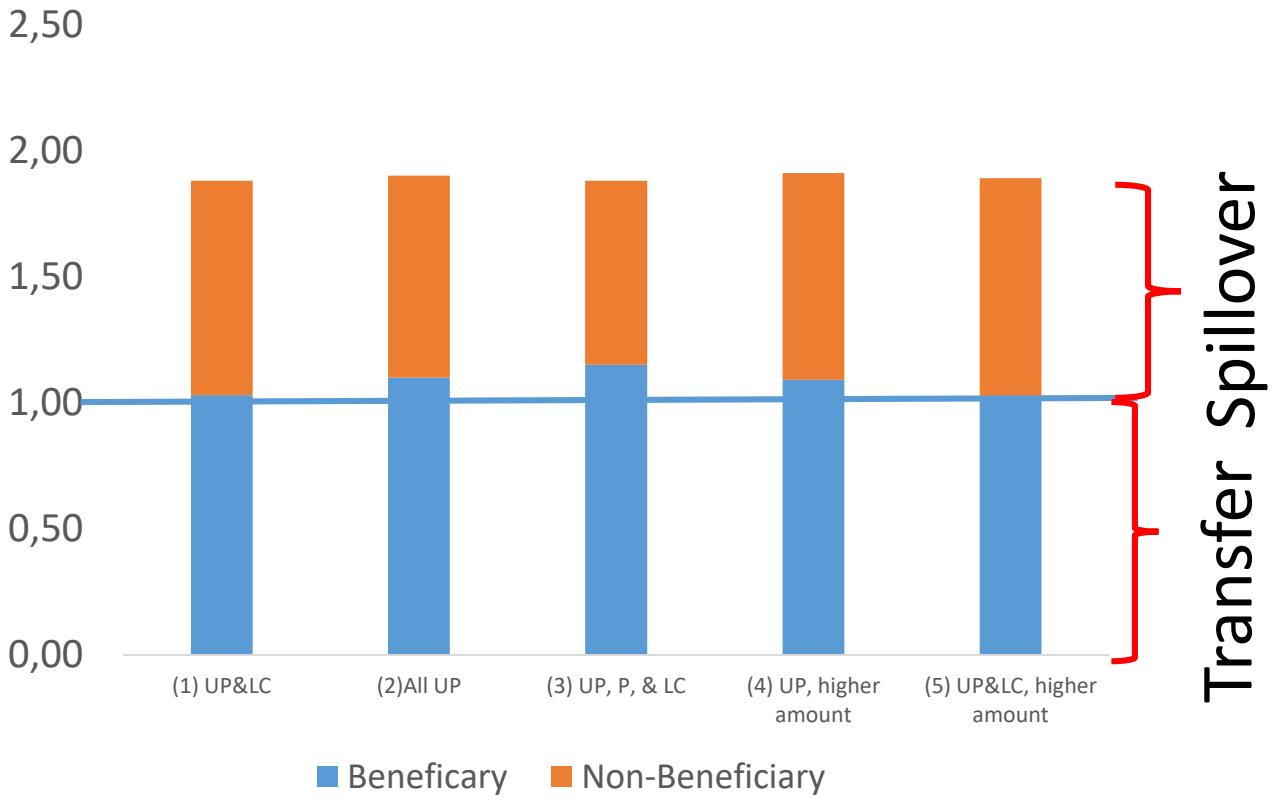


Note: UP is Ultra-Poor households, LC is labor constrained, P is moderately poor households. Higher amount means FISP money added to SCT.

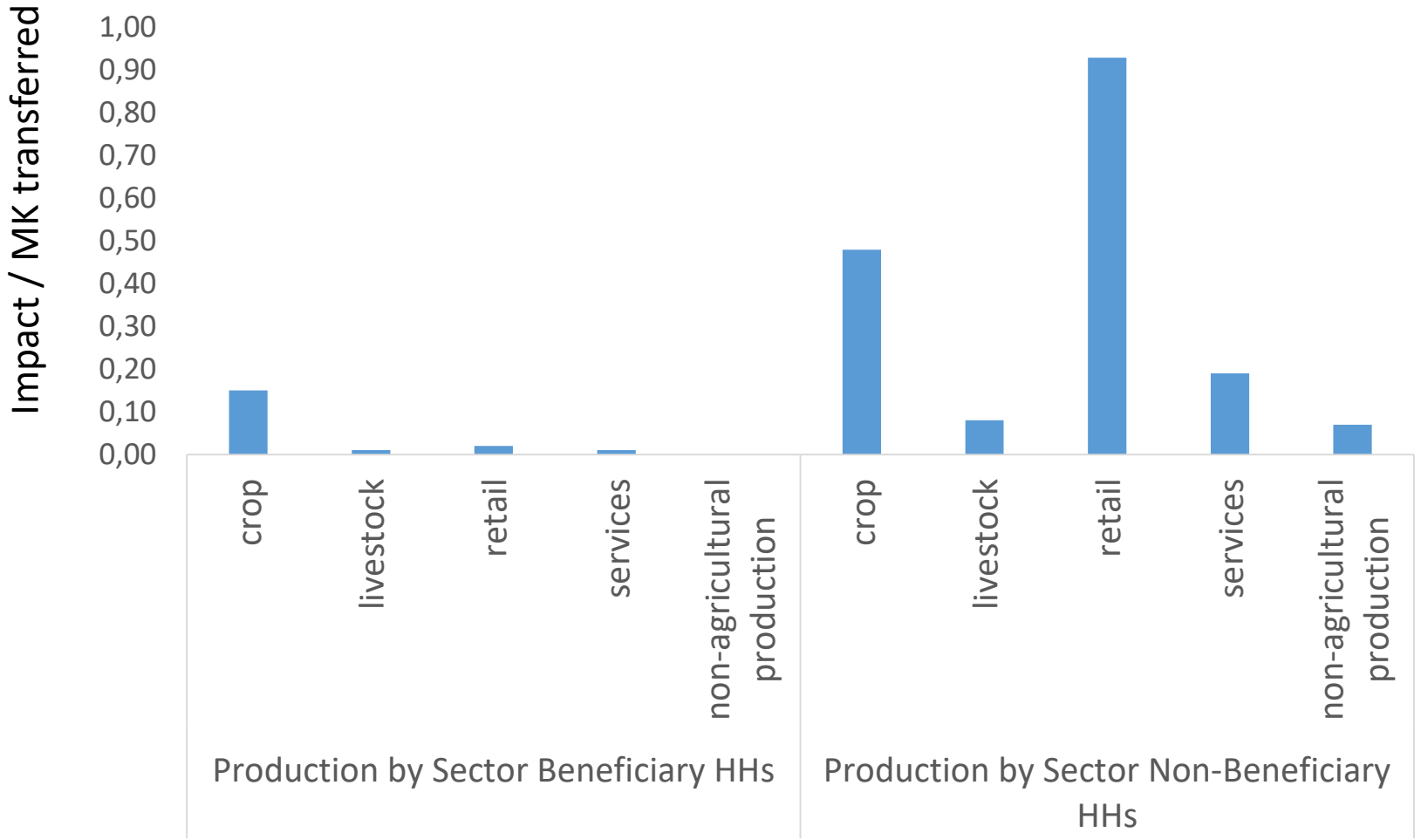
SCT Real Income Multipliers

- Most of the spillovers (>1) captured by non-beneficiaries who own more crops, livestock, retail businesses, etc.



Source: IHS3 Malawi

Per kwacha of transfer all HHs increase production but most productive changes for non-beneficiary households



Cost-benefit ratios are similar across options – all cost-effective

SCT Option	Benefit-Cost Ratio
(1) Ultra-poor and labour constrained	1.49
(2) All ultra-poor	1.52
(3) Ultra-poor, poor, and labour constrained	1.49
(4) Ultra-poor, higher amount	1.52
(5) Ultra-poor labour constrained, higher amount	1.50

SCT Results

- **Significant impacts on real income of the beneficiary HHs**
- **SCTs create large income spillovers**
- **SCT have productive as well as protective impacts.**
  - Despite being targeted mainly to the ultra-poor, all households increase production of crops, livestock, retail, service and production goods.
- **Most SCT spillovers go to households that are not eligible for cash transfers.**

Public Works Programme

PWP policy with and without the creation of rural assets and/or skill transfers

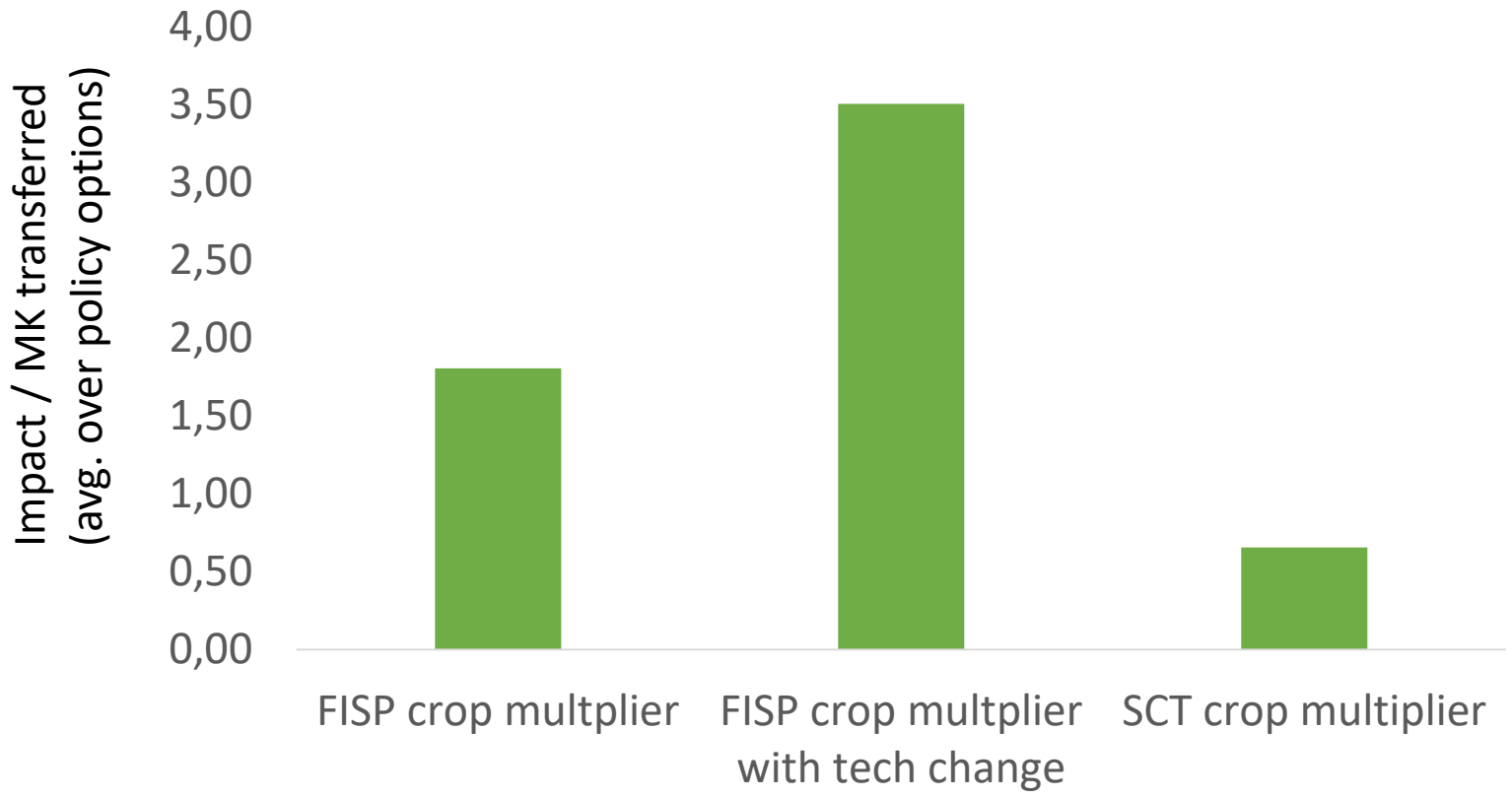
	Description	Coverage as percentage of total number of households	Benefit per day in USD
Option 1 (status quo by end of 2017)	Wages paid to 55% of moderately poor and ultra-poor labor-unconstrained HH	Approx. 16 percent of the total number of HHs, about 450,000 HH	0.90 per day, **48 days of work**
Option 2 (ultra-poor labour-unconstrained HHs)	Wages paid to 92% of ultra-poor labor-unconstrained HH	Same total coverage as option 1	Same as option 1
Option 3 (all poor labour-unconstrained HHs with more days)	Same HHs as option 1	Same total coverage as option 1	0.90 per day, **96 days of work**

If PWPs do not also create productive assets and/or skill transfer for the rural community they have a lower Benefit-Cost Ratios than SCTs (PWPs have higher non-transfer costs: admin, planning, tools, etc.)

SCT	Real Income Multiplier w/o admin and other costs
Transfer to all ultra-poor labour-constrained households	1.88

Farm Input Subsidy Programme (FISP)

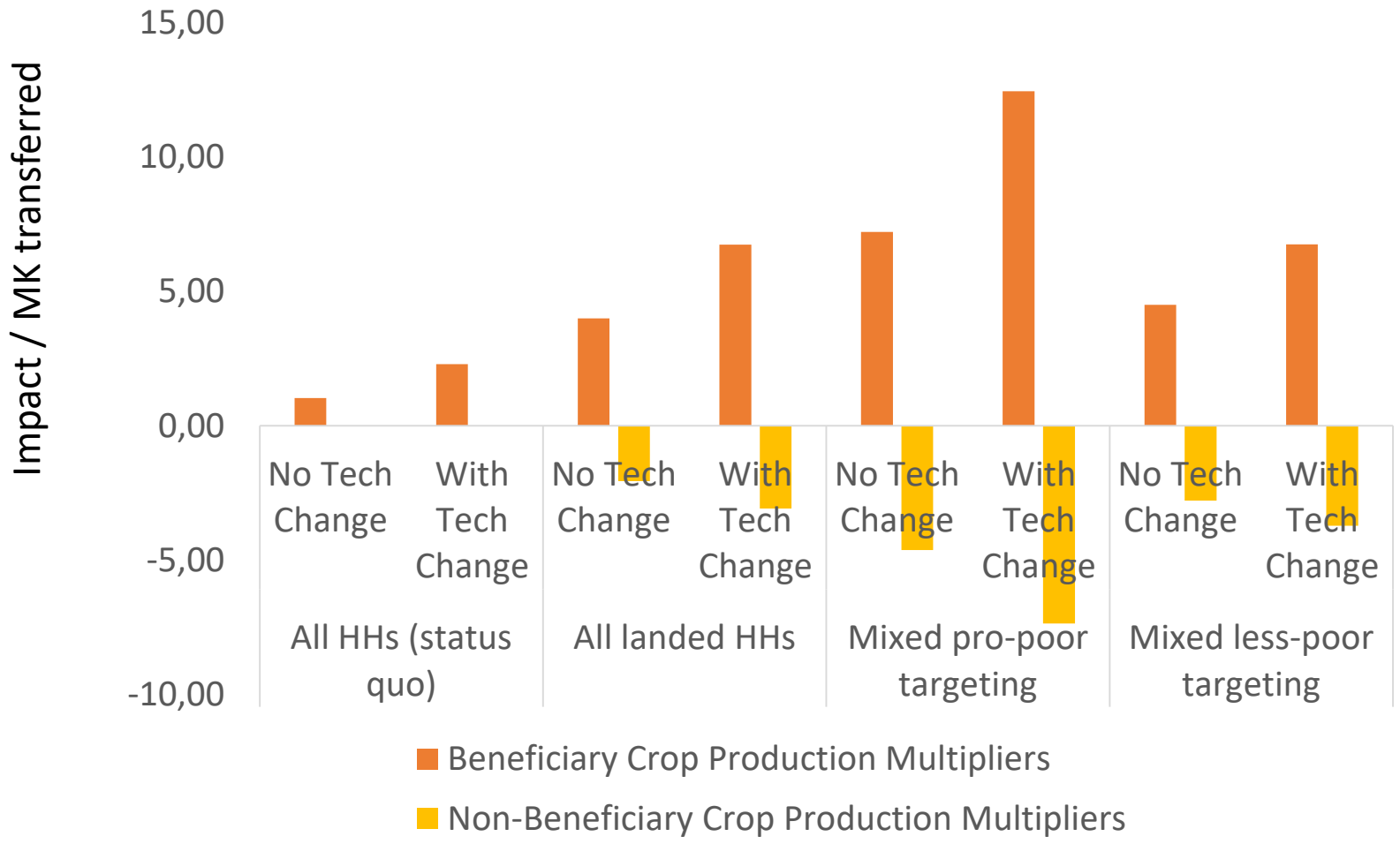
FISP has higher crop production multipliers than SCT especially with technology change



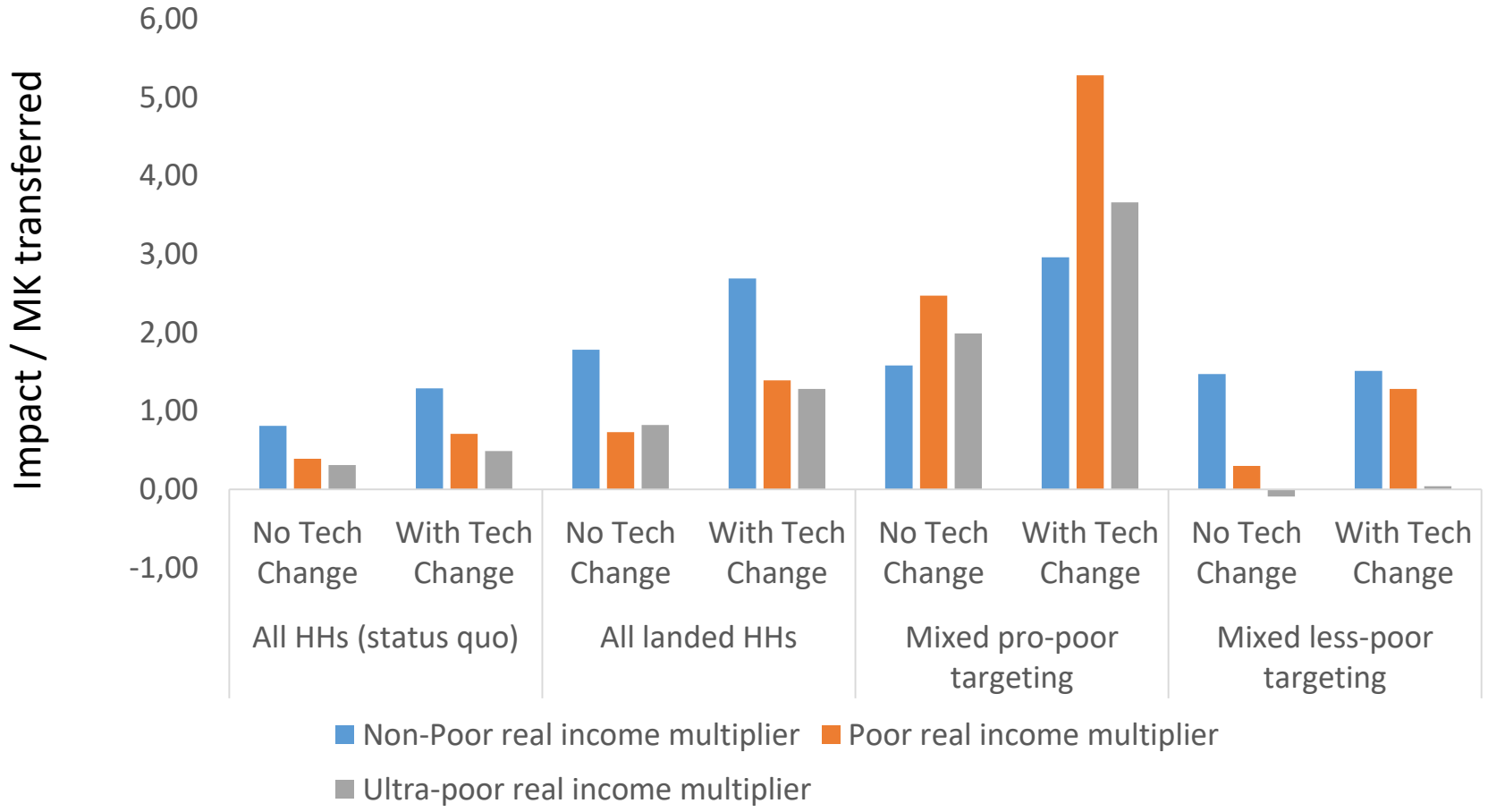
FISP policy options

- 1) **All households** - FISP status quo given to households from all groups (900,000 HHs).
- 2) **All landed households** - FISP given to “Productive Farmers” (from groups with land above the median >1.5 acres) (900,000 HHs).
- 3) **Mixed pro-poor targeting** - FISP given to “Productive Farmers” excluding non-poor and ultra-poor labour-constrained (377,000 HHs).
- 4) **Mixed less pro-poor targeting** - FISP given to “Productive Farmers” excluding ultra-poor (677,000 HHs).

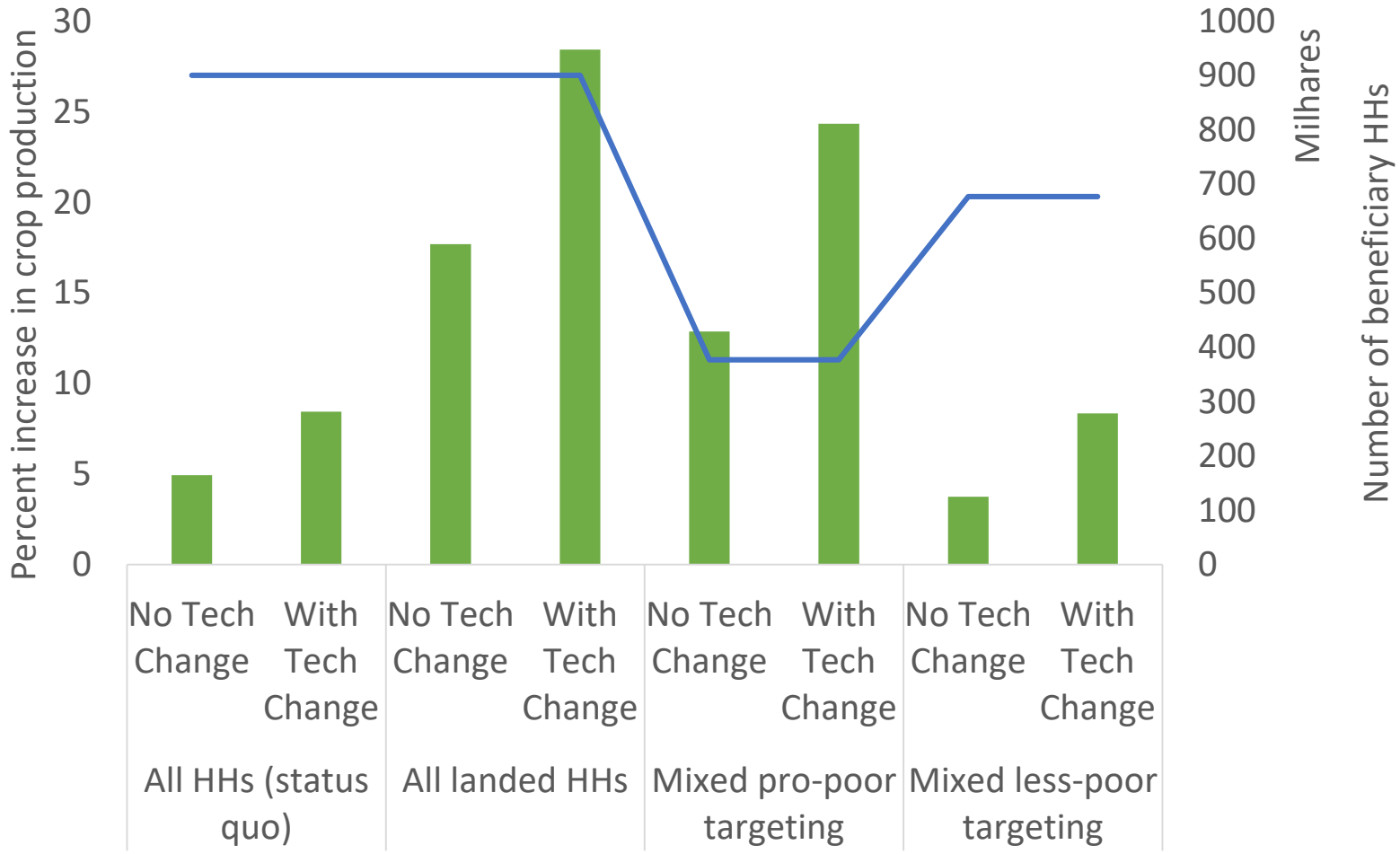
FISP non-beneficiaries reduce crop production



FISP can have negative spillovers effects if targeted to less poor HHs



FISP production effects – percent increase over baseline



FISP can have high benefit-cost ratios with both a subsidy and added technology change but may have negative effects on non-beneficiaries

FISP Option	Real Income Multiplier w/o administrative costs	Benefit-Cost Ratio
Option 1 (status quo by end of 2017-all HHs - no tech change)	1.51	1.21
Option 1 with tech change	2.49	1.99
Option 2 (all landed households)	3.33	2.66
Option 2 with tech change	5.36	4.29
Option 3 (mixed pro-poor targeting- no tech change)	6.03	4.82
Option 3 with tech change	11.90	9.52
Option 4 (mixed less-poor targeting - no tech change)	1.68	1.34
Option 4 with tech change	2.84	2.27
Option 5 (mixed less-poor targeting - lower subsidy- no tech change)	0.92	0.74
Option 5 with tech change	2.87	2.30

FISP Results

- **FISP stimulates crop production in all scenarios, and it increases both nominal and real incomes of the targeted households**

- **Moving to HHs to "Productive Farmers" increases production and income**

- **But, non-targeted households may not benefit**
  - Subsidized inputs stimulate crop production and drive down crop prices
  - This negatively affects crop producers who do not receive the subsidy.

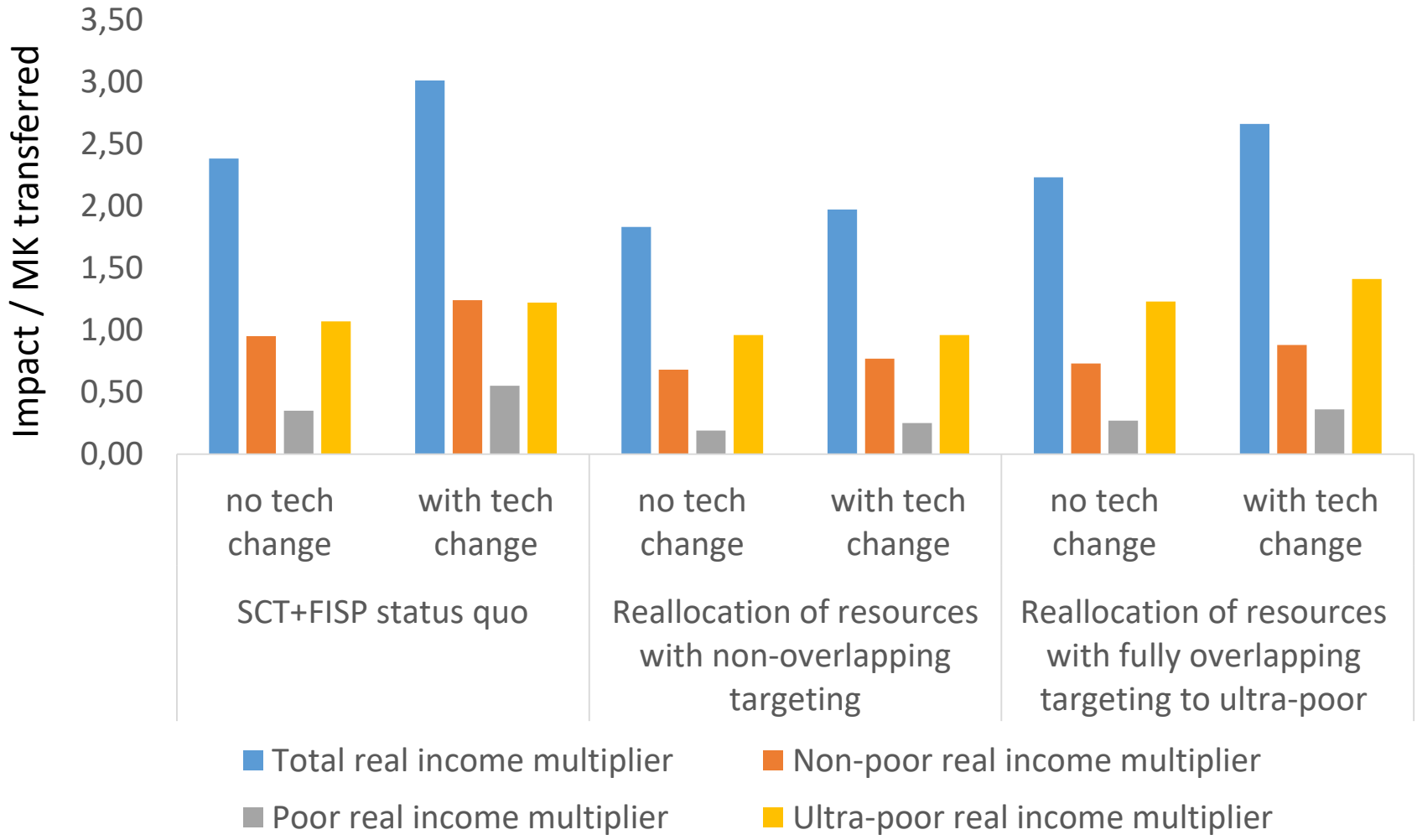
- **When the FISP also impacts technology, real income & cost-benefit ratios are higher.**

Combined Policy Options

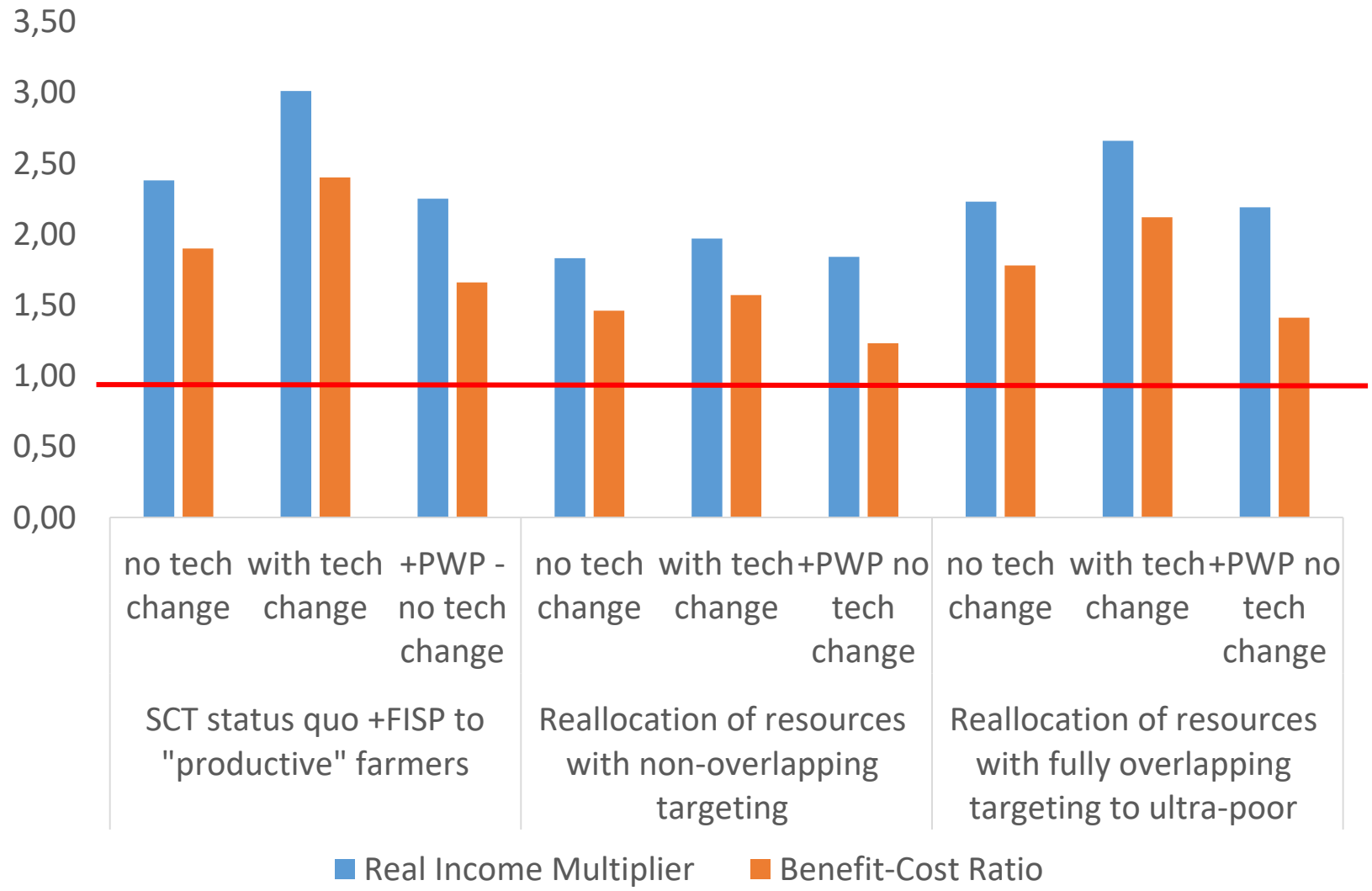
Combined Policy Options – with and without technology change and PWP

- **Option A: Combined SCT status quo ultra-poor labour constrained and FISP to "productive" farmers**
- **Option B: reallocation of resources with non-overlapping targeting (SCT to all ultra-poor, FISP to non-poor and poor households with land above median)**
- **Option C: reallocation of resources with partial overlapping targeting**
  - **SCTs targeting all ultra and moderately poor with labour constraints**
  - **FISP to moderately poor with land above median, and ultra-poor with land above median and labour capacity (overlap: moderately poor with land and labour contraints)**
- **Option D: reallocation of resources with fully overlapping targeting**
  - **FISP and SCTs targeting moderately poor with land above median, and ultra-poor with land above median and labour capacity**
- **Option E: reallocation of resources with fully overlapping targeting to ultra-poor households**
  - **FISP and SCTs targeting all ultra-poor households**

Combined options income multipliers by poverty group



Combined options are cost effective



Combined social protection and productive interventions increase multipliers and benefit-cost ratios more than social protection alone

Programs	Real Income Multiplier	Benefit-Cost Ratio
SCT	1.88	1.94
Combined SCT+FISP with tech change	3.01	2.40

Fully overlapping (SCT+FISP to the same households) have higher benefit-cost ratios than the non-overlapping case

Programs	Real Income Multiplier	Benefit-Cost Ratio
Reallocation of resources with non-overlapping targeting - no tech change	1.83	1.46
Reallocation of resources with fully-overlapping targeting to ultra poor - no tech change	2.66	2.12

Combined Programme Results

- **Technology change (whether from FISP, PWP rural assets, Irrigation and/or extension services) enhances the impacts of protective policy interventions such as SCTs and PWP transfers.**
  - Interventions that raise agricultural productivity lower food costs, and this has positive real-income effects for poor households.
- **Fully overlapping (SCT+FISP) can have a larger impact than their non-overlapping counter-part**
- **Conversely, SCTs, which increase food demand, create new markets for food production stimulated by productive interventions.**

Additional Conclusion

→ Impacts are often bigger than people think

- Many impact studies miss most of the impacts by not estimating spillovers.

Acknowledgements

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- ILO
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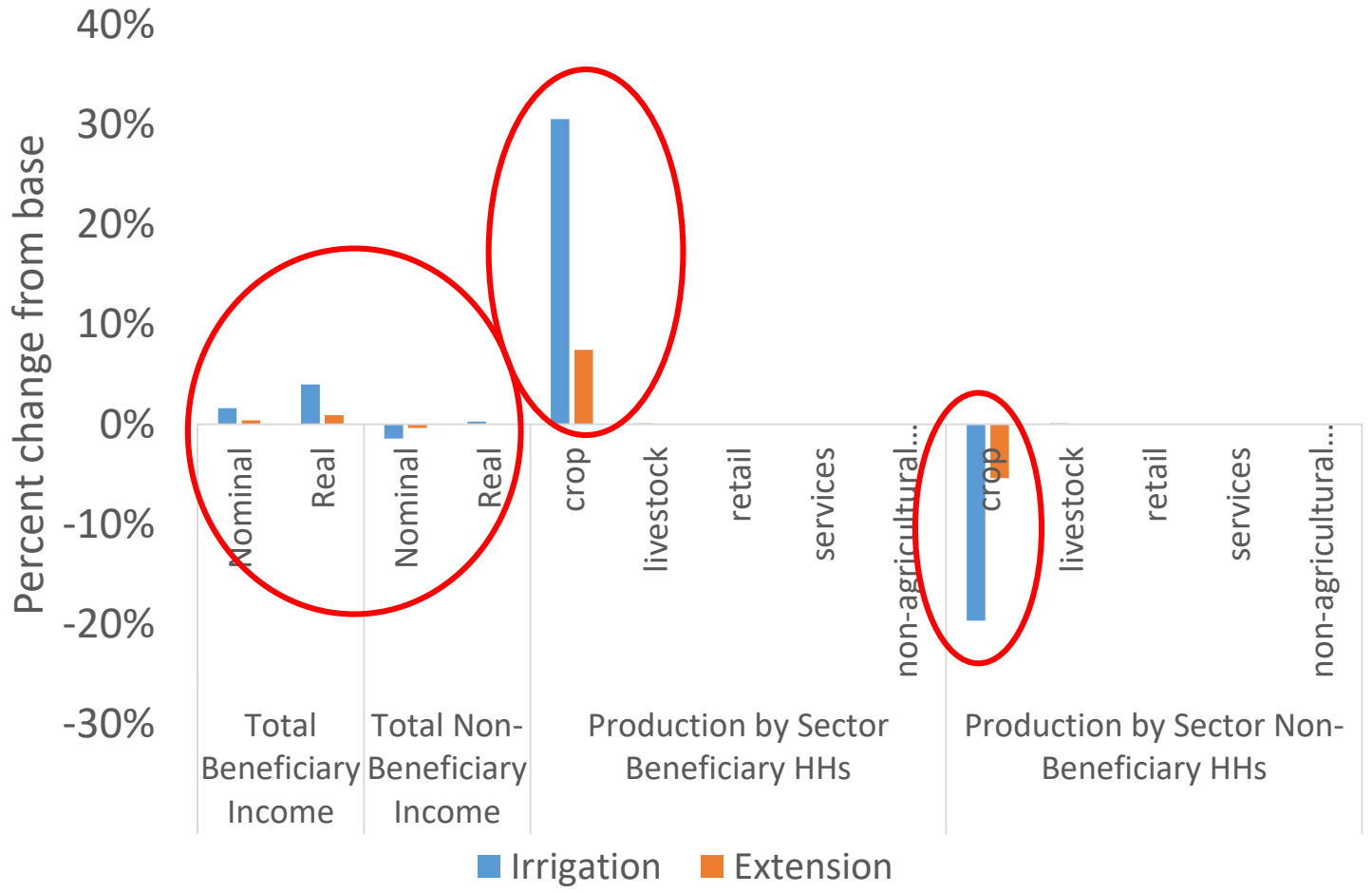
  - Luca Pellerano

Thank you!

Irrigation and Extension

Irrigation and Extension Results



Irrigation and Extension Policy Implications

- **Irrigation and extension increase crop production of beneficiaries and income of for both beneficiary and non-beneficiaries.**
- **They also reduce crop prices which while lowering food prices negatively affect crop production of non-beneficiary HHs.**
- **As with the FISP, irrigation and extension services should be combined with SCTs which stimulate food demand, thus stabilizing crop prices.**



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DISCUSSION ON:

The Power of Local Economy Multipliers: Synergies between Social Protection and Agricultural Interventions in Malawi

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Main findings

- The LEWIE-CBA show that selected programmes have direct impacts on beneficiary households and generate income and production spillover affecting non-targeted households

- This study is the first to analyze the local economy multiplier of stand-alone interventions AND their combinations with a specific focus on the synergies between social protection and agricultural interventions

Main findings

- Income spillovers are an important component of cost-benefit analyses

- They strengthen the argument of the effectiveness of social protection and productive interventions by capturing the full impact of interventions in rural economies

Main findings

- Income spillovers from social protection and agricultural interventions have important implications for equity

- Ex. Non-poor and moderately poor hh_s benefit significantly from the SCT even if they do not receive transfers. This because they have the resources to expand production in response to rising local demand
- Asset-poor hh_s do not have the capacity to respond and income gains depend upon whether or not they are benefiting directly from transfers

Main findings

- Ignoring production spillovers not only misses programme benefits, but it also creates the risk of missing negative indirect impacts that could be avoided with complementary policies.

- Ex. If FISP raises the market supply of food crops and pushes down food prices, any food producer who does not receive the FISP could suffer
- FISP could also be regressive if it does not lower food costs, or if it is not combined with cash transfers to poor farm households

Policy recommendations (1)

The SCT has the largest impacts on beneficiaries' poverty levels and <u>should be expanded if poverty reduction is the objective</u>

As asset poor households have limited capacity to benefit from spillovers and depend mainly on transfers for income gains, it is vital that they benefit directly from adequate transfers

Policy recommendations (2)

PWPs are only cost-effective if they build assets and transfer skills that increase productivity

<u>Ensuring relevance and quality of assets and an increased focus on skills should be a priority</u>

Policy recommendations (3)

The cost-effectiveness of the FISP depends on whether it increases productivity beyond the subsidy, so implementers should consider providing additional productivity support

Policy recommendations (4)

Targeting the FISP to poor and ultra-poor farmers with land, rather than better off farmers, produces larger income and production multipliers for the economy as a whole, as the poor and ultra-poor considerably expand production as a result of the FISP. These findings should inform the ongoing discussion on the need to focus the FISP on 'productive' farmers and highlight the productive potential of Malawi's poor and vulnerable

Policy recommendations (4) con’t

The proposal of retargeting FISP toward productive households could be beneficial but <u>will need not only robust SCTs to the ultra-poor but also additional production support for non-beneficiary poor farmers</u> in order to mitigate negative effects on crop prices.

This could come in the form of targeted ag. extension services, irrigation projects, and/or livelihood support.

Policy recommendations (5)

A full or at least partial overlap of FISP and SCT on the poor not only produces higher multipliers for the whole economy compared to non-overlapping targeting, but also has a better distributional impact, with larger increase of incomes and production amongst the poorest households

If the policy goal is to raise rural incomes and also increase crop production, it is clear that combining social and productive interventions is a more effective strategy than doing either one of these alone.

Thank you!

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