

Assessing the Impacts of School Feeding Programs, With Special Reference to Kenya

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Why School Feeding Programs (SFP)?

- 1. Increases enrollment, attendance and cognition*
 - Parents have more incentives to send their children to school
 - Children concentrate better during class and get higher test results
- 2. Frees household income to invest in productive assets*
- 3. Improves children's nutrition and health*
- 4. Children grow up to be more productive*

School Feeding Also Can *Stimulate Rural Economies*

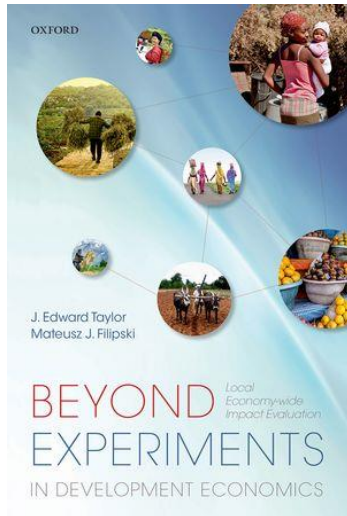
- ***Schools get cash***
- ***Schools buy from traders, farmers, or farmer groups***
 - In Kenya, almost always from traders
- ***Traders source what they sell from farmers and businesses***
(wholesalers)
- ***Farmers and businesses supply more to meet the demand***
 - Which raises incomes for households that supply labor and capital to these businesses
- ***Households spend their income***, creating new rounds of income gains
- As this process continues, SFP can create ***local income multipliers***
- ***Traders buy food in other parts of the country*** (mostly high high agricultural potential (HAP) areas)
 - This shifts some of the benefits to other parts of the country

Why It's Important to Understand Local Economic Impacts and Why They Happen

- ***They are part of the total impact of SFP***
 - If we ignore them, we may miss many of the benefits (and possibly costs) of these programs
- If SFP helps kids ***and*** stimulates local economies, this ***could “tip the scales” in favor of funding, expanding SFP***
- If we understand economic impacts and why they happen, we might be able to ***design policies to make these impacts better***
- ***It's something you can “take to the Finance Minister”***

Local Economy-wide Impact Evaluation (LEWIE)

- A simulation approach
- Integrates micro-economic models of groups of actors into a general-equilibrium model of the local economy
- Model parameters estimated econometrically, using microsurvey data
- Has been used to assess local-economy Impacts of:
 - Lesotho's Child Grants Program
 - Malawi's Farm Input Subsidy Program (FISP)
 - Eco-tourism in the Galapagos Islands
 - Impacts of refugees in Rwanda and Uganda
 - Fish ponds in Myanmar
 - Impacts of fishery regulations in the Philippines
 - Global price shocks in Morocco
 - Trade integration in Central America and the Caribbean
 - Technology change in Tanzania
 - Migration and corruption in Mexico



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How to Make a SFP LEWIE Model

Model of SFP Schools



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*How do schools spend
their SFP funds?*

How to Make a SF LEWIE Model

Model of SFP
Schools



*How do traders
spend SFP funds?*

Model of Traders



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How to Make a SF LEWIE Model

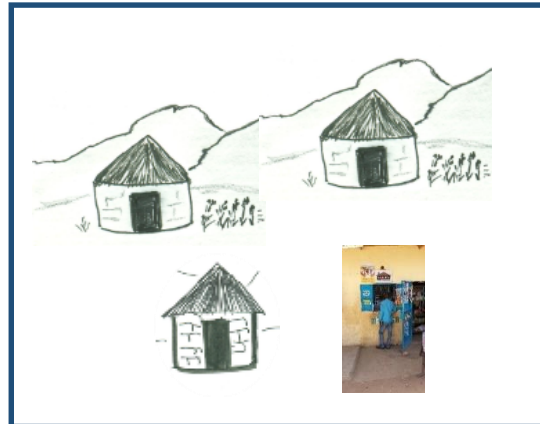
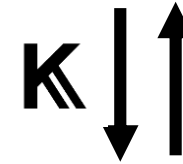
Model of SFP
Schools



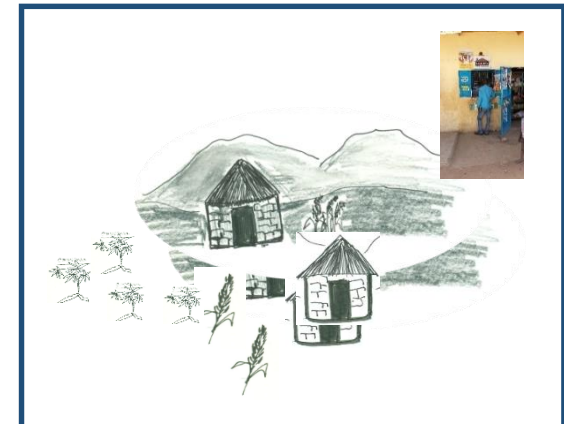
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Model of Traders



Model of Businesses and
Households in SFP
Region



Model of Businesses and
Households in Other
(e.g., high ag potential,
HAP) Regions

*How do households and
businesses spend their
income?*

How to Make a SF LEWIE Model

Model of SFP
Schools



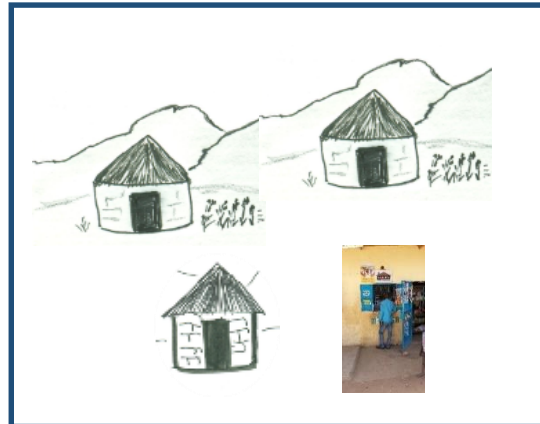
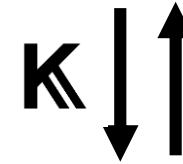
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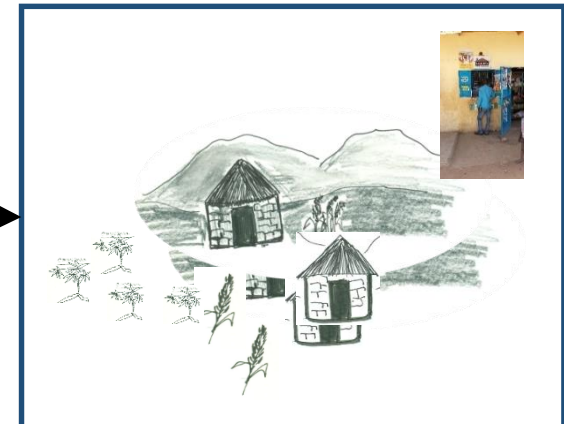
*Surveys of Schools,
Traders, Businesses, and
Households in SFP and
HAP sub counties*



Model of Traders



Model of Businesses and
Households in SFP
Region



Model of Businesses and
Households in Other (e.g.,
HAP) Regions



First Application: Kenya's Home Grown School Meals Program (HGSMP)

- WFP and Government of Kenya initiated a school meals program in poor rural areas of Kenya in the 1980s.
- In 2009, the WFP started handing over the program to the Ministry of Education. This transition was completed in 2018.
- The Government-financed program now feeds about 1.6 million school-going children in 4,048 schools across Kenya.
- Since 2009, focus on creating a nationwide HGSMP that feeds children at school while stimulating local agricultural production, by purchasing food from smallholder farmers and local food suppliers.
- The HGSMP LEWIE is a collaboration among University of California, Davis; WFP; and Kenya's Ministry of Education and Ministry of Agriculture and Livestock, with critical financial support from Thai Union.

Getting the Data: We Surveyed Random Samples of Traders, Households and Businesses

- Schools:
 - **286 schools from 41 counties and 118 sub counties**
- Traders:
 - **166 traders** who participated in the bidding process to supply food to schools
- Households in a 10 km radius of schools
 - **1,137 households, 20 localities**
 - 998 in HGSMF sub counties
 - 139 in HAP sub counties
- Businesses in a 10 km radius of schools
 - **578 randomly selected businesses**



Our Survey Team



We Used the LEWIE to Estimate Impacts of the HGSMP in Rural Kenya Using Simulations

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3. A **“food basket diversity” modification**, in which schools spend HGSMP funds (10%) on an expanded basket of foods, including drought-tolerant crops and animal products.

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3. A “food basket diversity” modification, in which schools spend HGSMP funds (10%) on an expanded basket of foods, including drought-tolerant crops and animal products.
4. A **“make farmers more productive” modification**, in which there is a 10% increase in funding to HGSMP schools and interventions that raise farm productivity in the HGSMP sub counties by 10%.

1. Status Quo Impacts of Kenya's HGSMMP

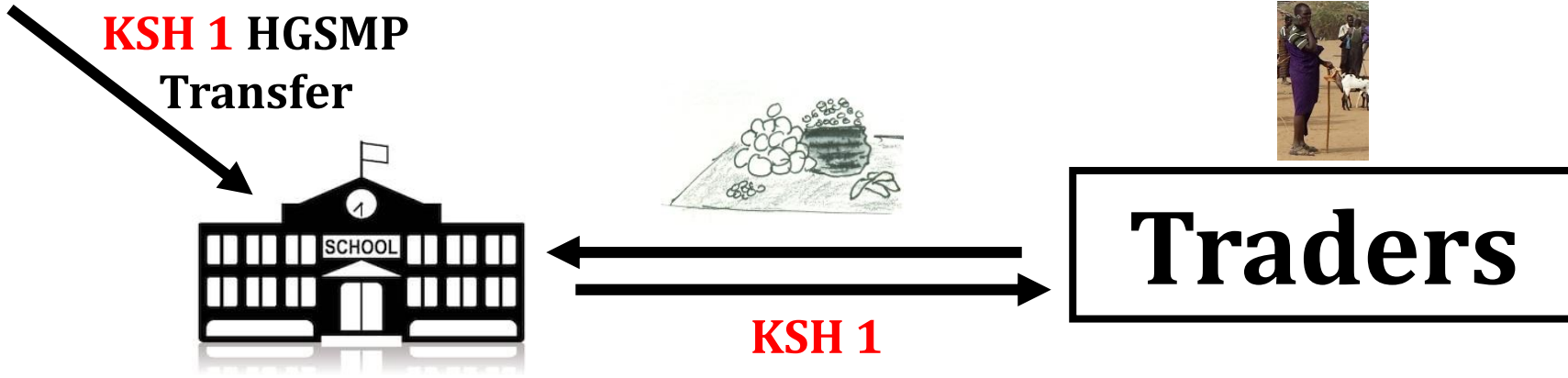
KSH 1 HGSMMP
Transfer



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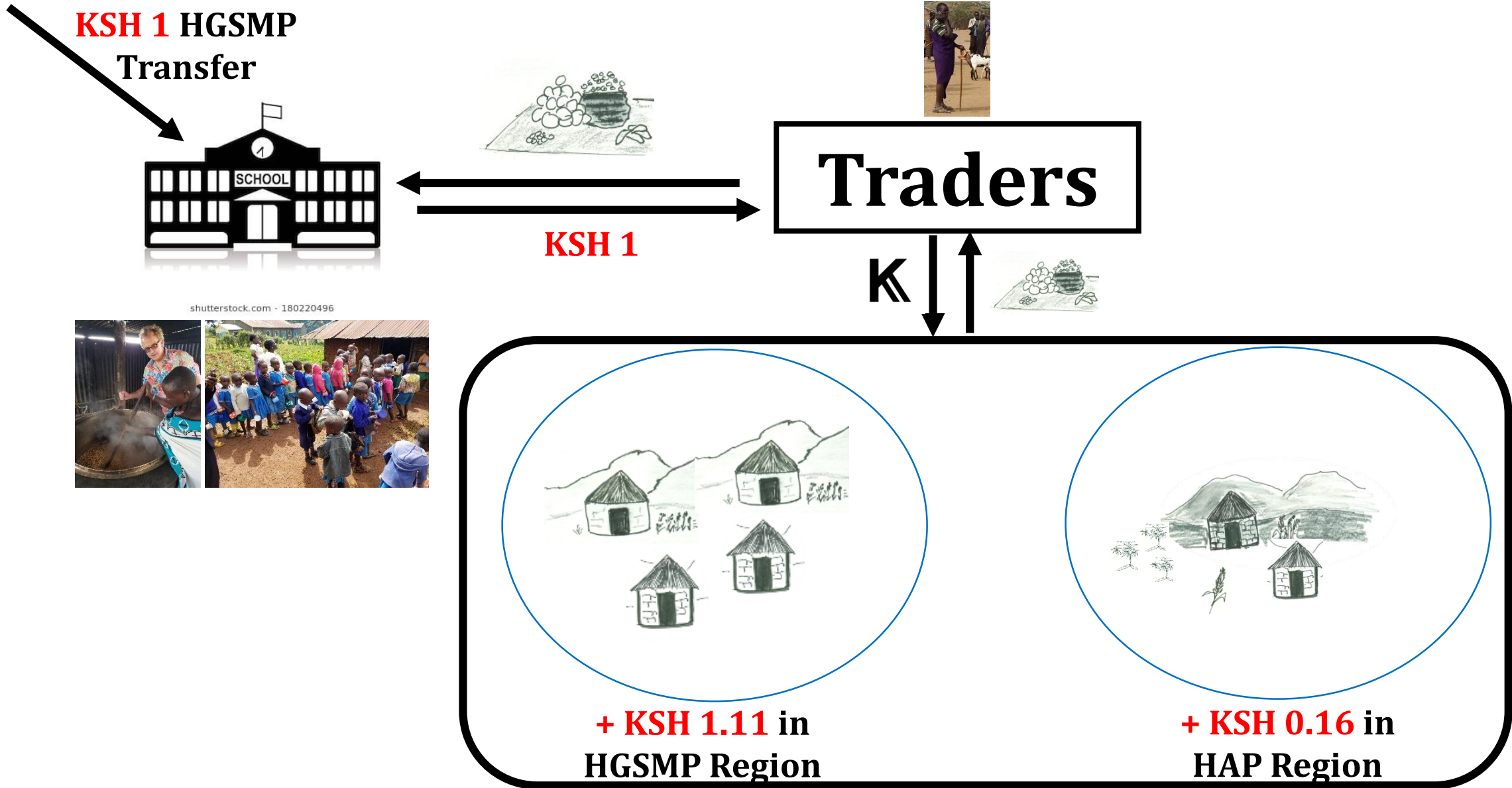
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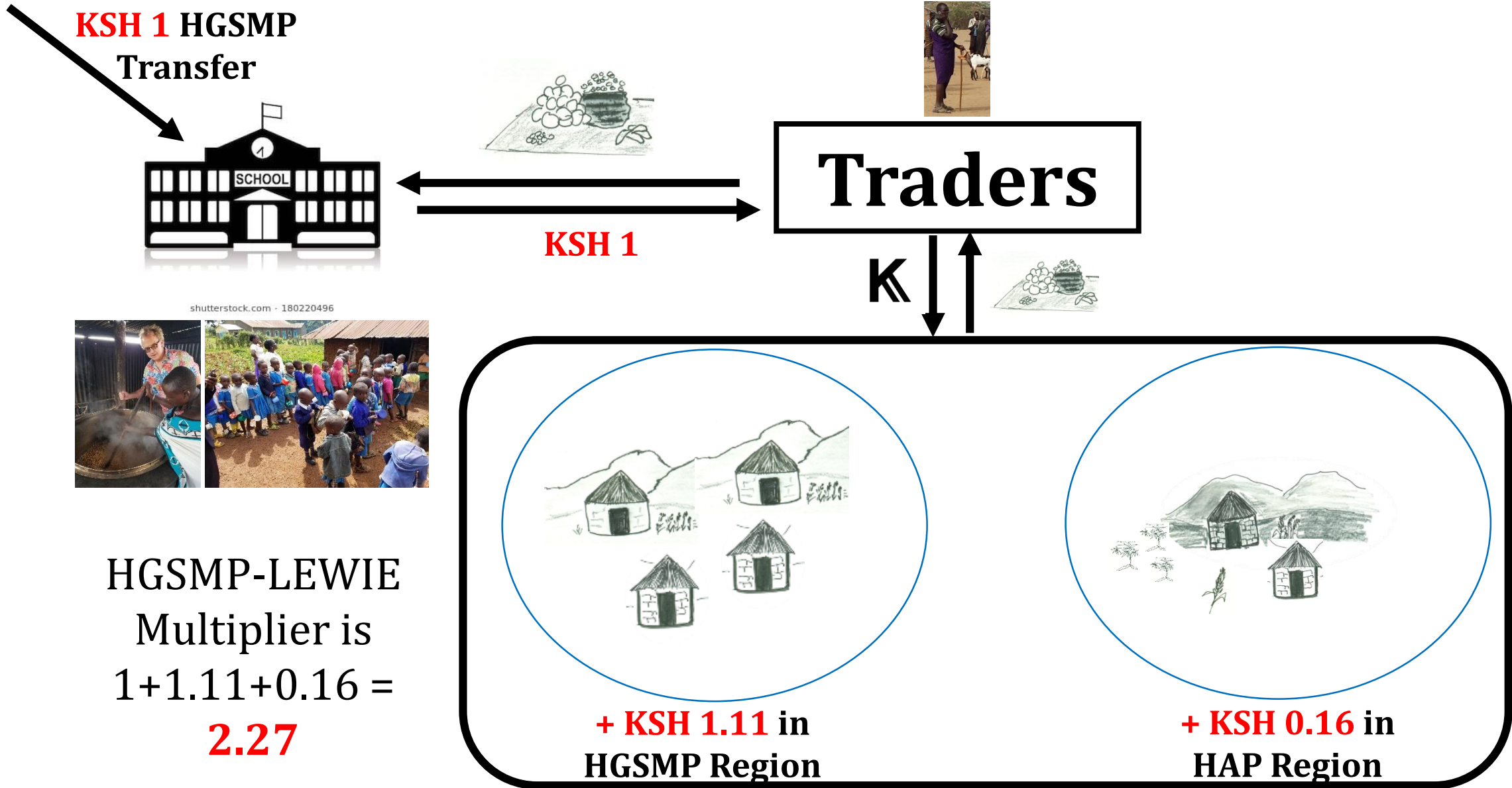
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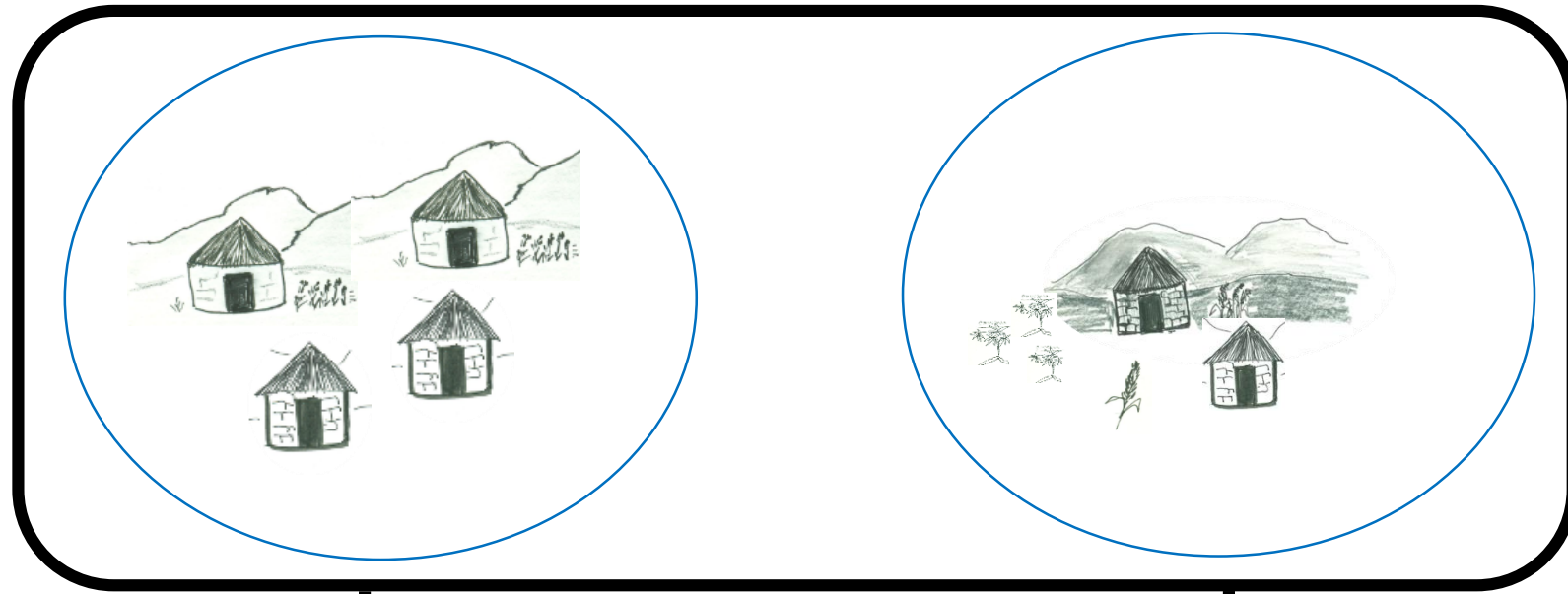


1. Status Quo Impacts of Kenya's HGSMMP



1. Status Quo Total Impacts of HGSMMP

Program Cost:
2,429 million
KSH (USD 24.28
million)



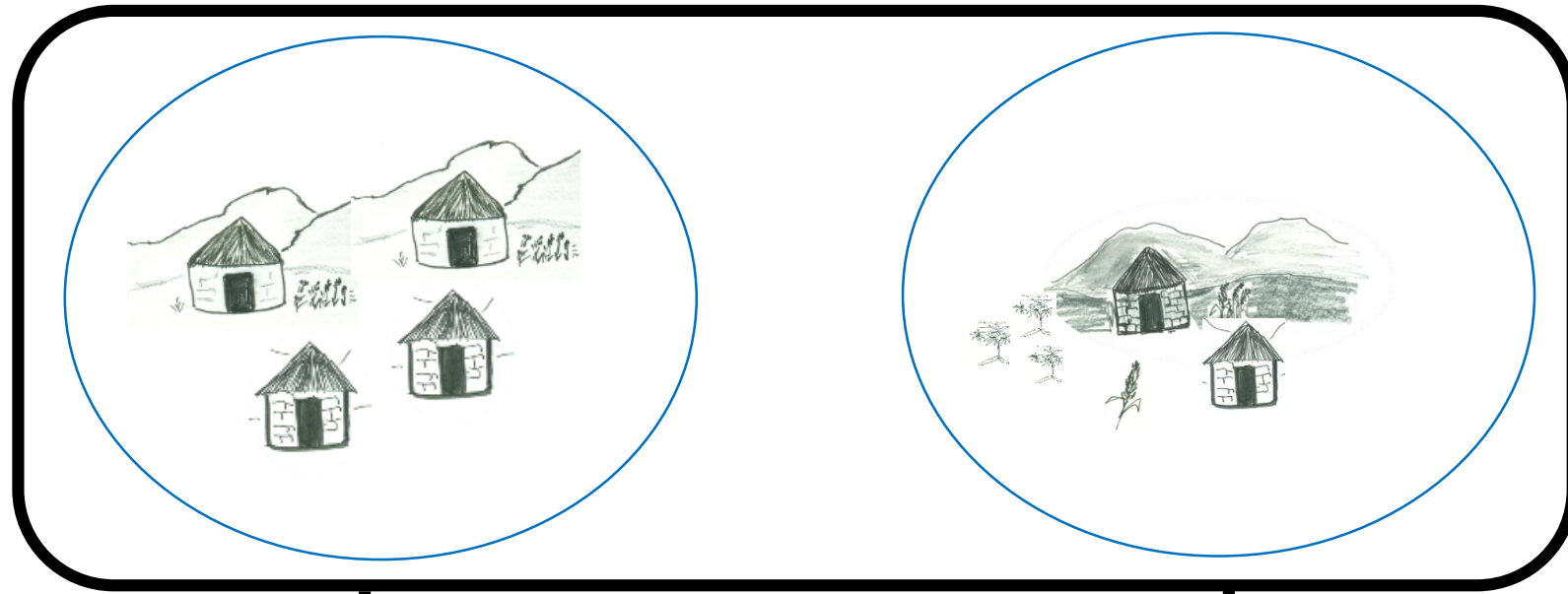
STATUS QUO
HGSMMP

KSH 2,696 million
(USD 26.9 million) in
HGSMMP Region

KSH 389 million (USD
3.8 million) in
HAP Region

2. Impacts of “Buy Local” Modification

Program Cost:
2,429 million
KSH (USD 24.28
million)



STATUS QUO
HGSMP



KSH 2,696 million in
HGSMP Region

10% purchase
directly from
HGSMP Region



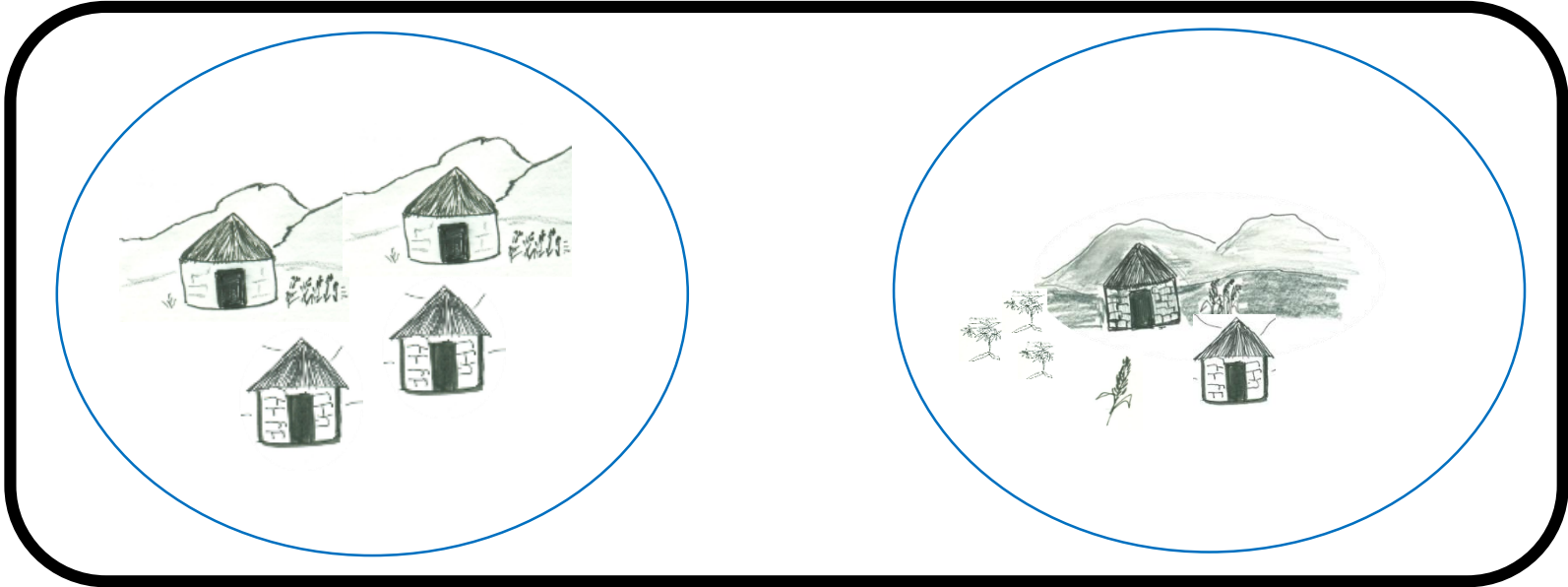
KSH 3,090 million in
HGSMP Region

KSH 389 million in
HAP Region

KSH 207 million in
HAP Region

7% increase
in Impact on
Total Real
Income

3. Impacts of Food Basket Diversity Modification



Program Cost:
2,429 million
KSH (USD 24.28
million)

STATUS QUO
HGSMP



KSH 2,696 million in
HGSMP Region

KSH 389 million in
HAP Region

10% Expanded
Food Basket



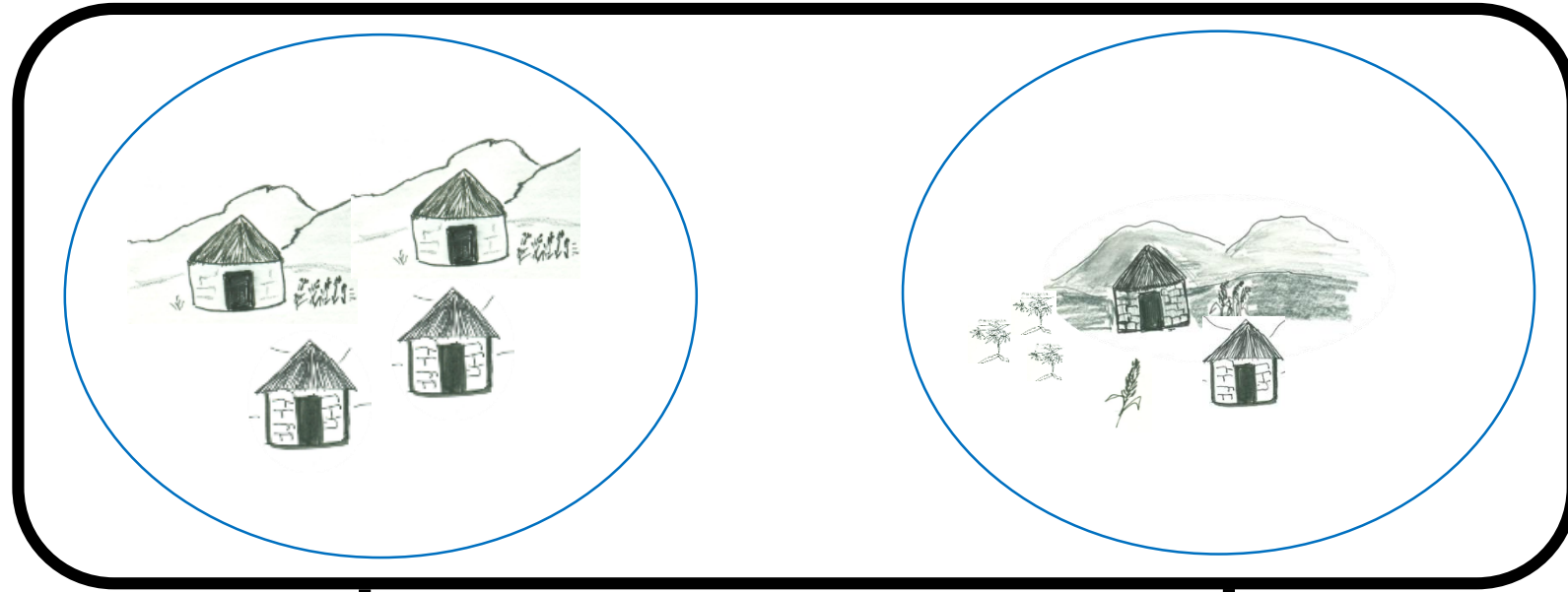
KSH 3,478 million in
HGSMP Region

KSH 783 million in
HAP Region

38% increase
in Impact on
Total Real
Income

4. Impacts of Making HGSMF-region Farmers More Productive

Program Cost:
2,671 million
KSH (USD 26.71
million)



STATUS QUO
HGSMF



KSH 2,696 million in
HGSMF Region

10% More

Productive Farmers
+ 10% Additional
HGSMF payments



KSH 16,982 million in
HGSMF Region

KSH 389 million in
HAP Region

KSH 14,403 million
in HAP Region

917% increase
in Impact on
Total Real
Income

Conclusions

- ***First, the HGSMP creates large income multipliers in rural Kenya.***
Each shilling transferred to a HGSMP school creates an additional 1.27 KSH of additional real (inflation-adjusted) income in rural Kenya.

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- *First, the HGSMP creates large income multipliers in rural Kenya.*
Each shilling transferred to a HGSMP school creates an additional 1.27 KSH of additional real (inflation-adjusted) income in rural Kenya.
- *Second, part of the impact is not in the sub-counties where HGSMP schools are located,* because traders shift effects to HAP zones.
- ***Third, modifications to the HGSMP can increase impacts.***
 - Encouraging HGSMP schools to buy directly from farmers
 - Giving schools the flexibility to spend part of their HGSMP funds on an expanded food basket
 - Making HGSMP region farmers more productive.
 - This would require coordinating the HGSMP with extension and other investments to raise agricultural productivity in HGSMP sub counties.

*LEWIE changes the way we think about how
programs create impacts*

Thank You

