



# IFAD Multidimensional Poverty Assessment Tool

Briefing note on application and learning in Kenya and Eswatini

Produced by:



This briefing note focuses on the Multidimensional Poverty Assessment Tool. It provides a background to this monitoring resource and case study applications from Resilient Food Systems projects in Kenya and Eswatini, including a summary of results achieved by early 2019.

As part of the TRACK series of knowledge products from the Regional Hub project of the Resilient Food Systems Programme, this briefing note was prepared by the World Agroforestry (ICRAF) in collaboration with the International Fund for Agricultural Development (IFAD) – in particular the Fund’s Environment, Climate, Gender and Social Inclusion (ECG) and East And Southern Africa (ESA) divisions.



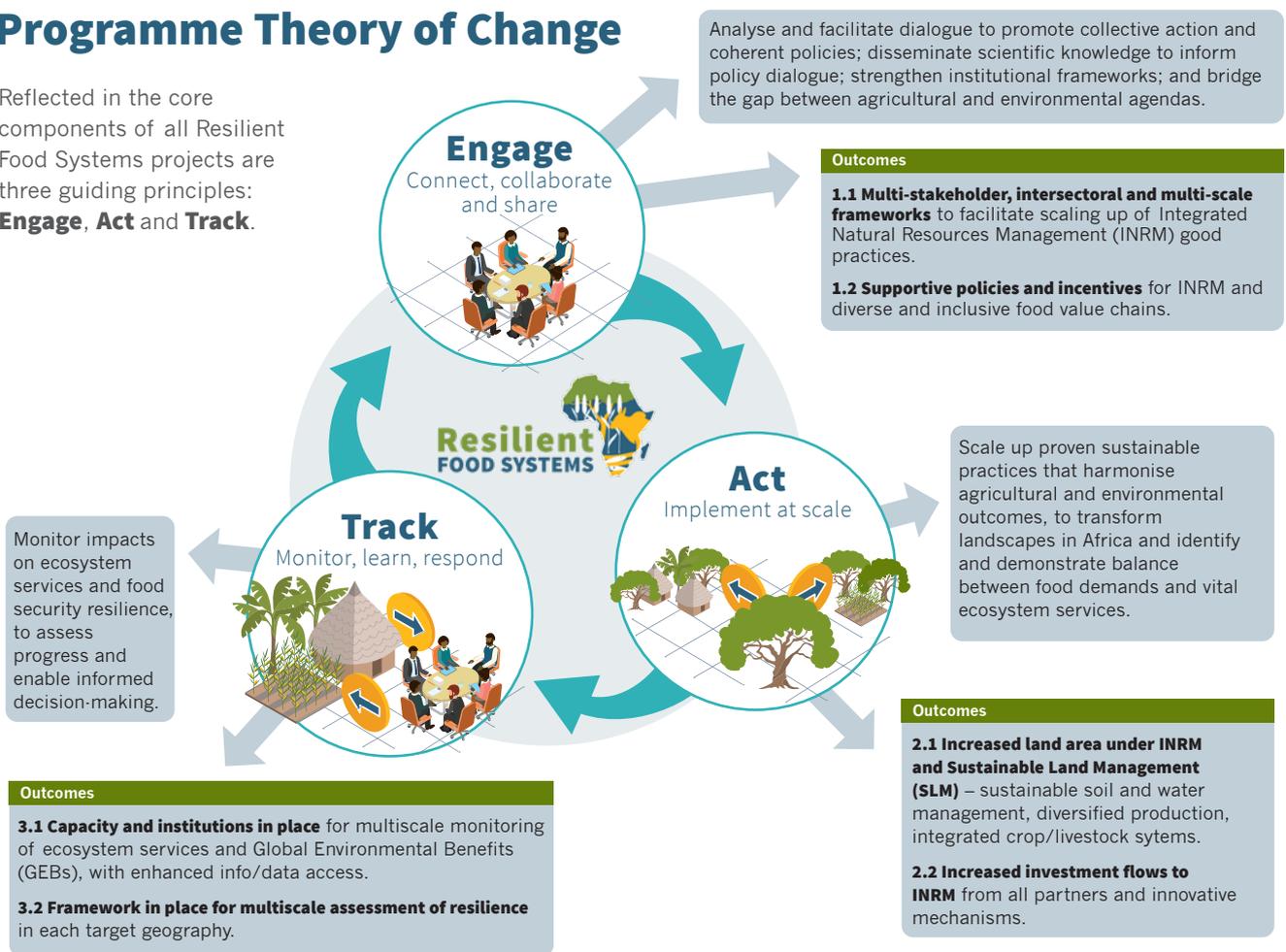
## Programme background

The Resilient Food Systems programme targets four geographies in sub-Saharan Africa that are seriously affected by environmental degradation and loss of ecosystem services, resulting in persistently low crop and livestock productivity, as well as increased food insecurity. Through activities in 12 countries, coordinated by a regional hub, we aim to put the management of natural capital as a priority in ongoing efforts to transform the agricultural sector and ensure sustainable food production in sub-Saharan Africa.

Resilient Food Systems is one of three ‘Integrated Approach Programmes’ piloted by the Global Environment Facility (GEF), which provides core funding. Overall implementation of this five-year initiative (2017-2022) is led by the International Fund for Agricultural Development (IFAD), in collaboration with several partners.

## Programme Theory of Change

Reflected in the core components of all Resilient Food Systems projects are three guiding principles: **Engage, Act and Track.**



# What is MPAT?

The Multidimensional Poverty Assessment Tool (MPAT) provides data that can inform all levels of decision-making, by facilitating a clearer understanding of rural poverty at the household and village levels. As a result, MPAT can significantly strengthen the planning, design, monitoring and evaluation of a project, and thereby contribute to rural poverty reduction.

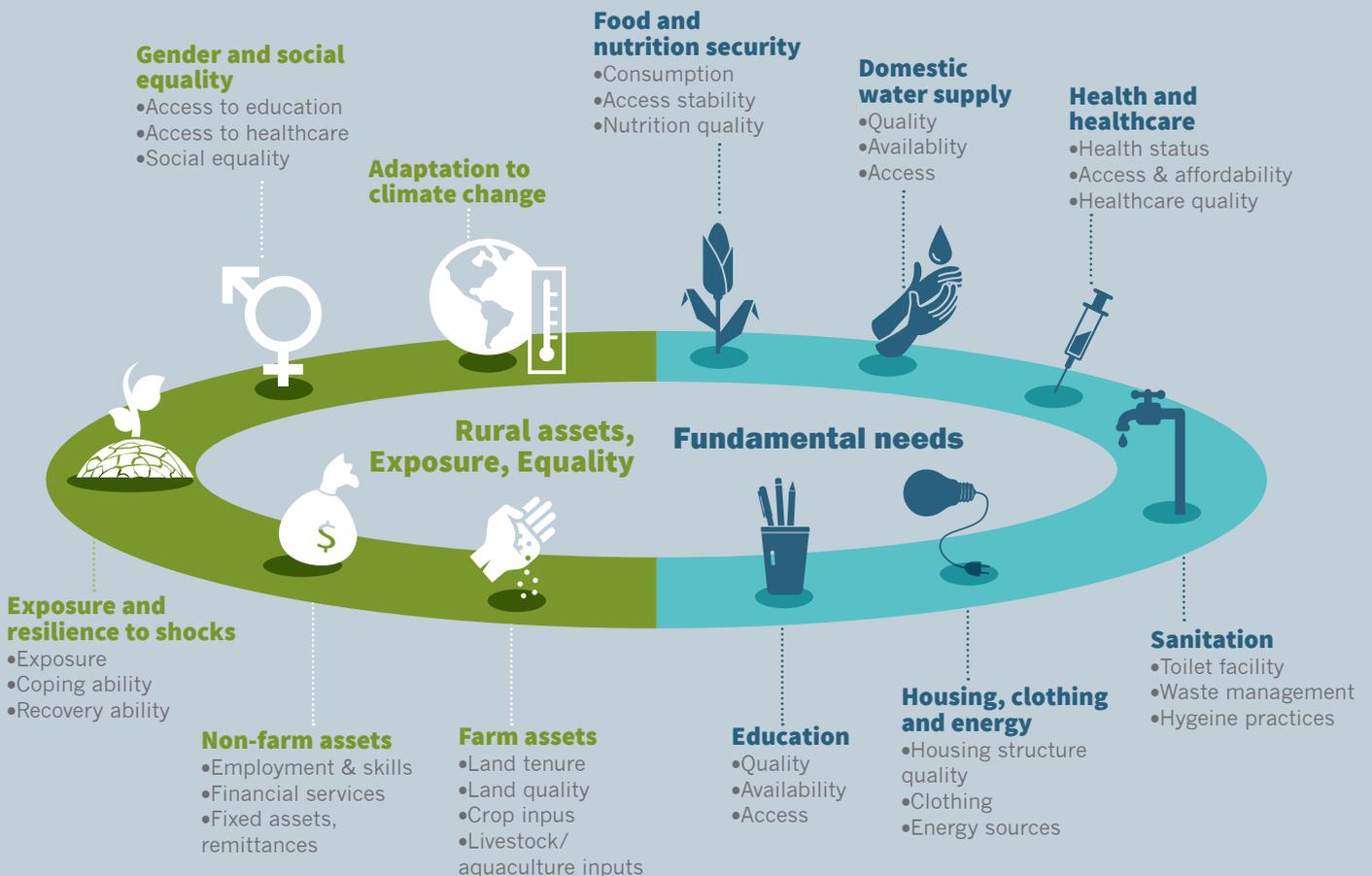
MPAT is the result of a collaborative, international initiative begun in 2008 and led by the International Fund for Agricultural Development (IFAD). This effort was spearheaded by Issa Mohamed AwaL, Mohamed El-Ghazaly and Christian Dietz, with the data collection and analysis of the case studies presented here led by Tiffany Minjauw.

MPAT advocates at IFAD include, among others, Steve Twomlow, Thomas Rath, Rudolph Cleveringa, Alasdair Cohen, and Philipp Baumgartner.

The purpose was to develop, test and pilot a new tool for local-level rural poverty assessment. The tool went through extensive field testing in several countries and independent validation and peer-review. MPAT is relatively easy to use, requires few resources to implement, and provides users with a reliable and comprehensive picture of a community's poverty situation.

Further information can be found at <https://www.ifad.org/en/web/knowledge/publication/asset/39631564>

## 11 MPAT survey modules and indicators



# Utilising MPAT

**Lessons learnt:** MPAT's utility can be maximised by using it in conjunction with biophysical data from the Land Degradation Surveillance Framework (LDSF). Data on land cover, soil condition, land degradation, and biodiversity enable project stakeholders to understand trends between biophysical and socio-economic indicators.<sup>1</sup>




## 2 Data collection

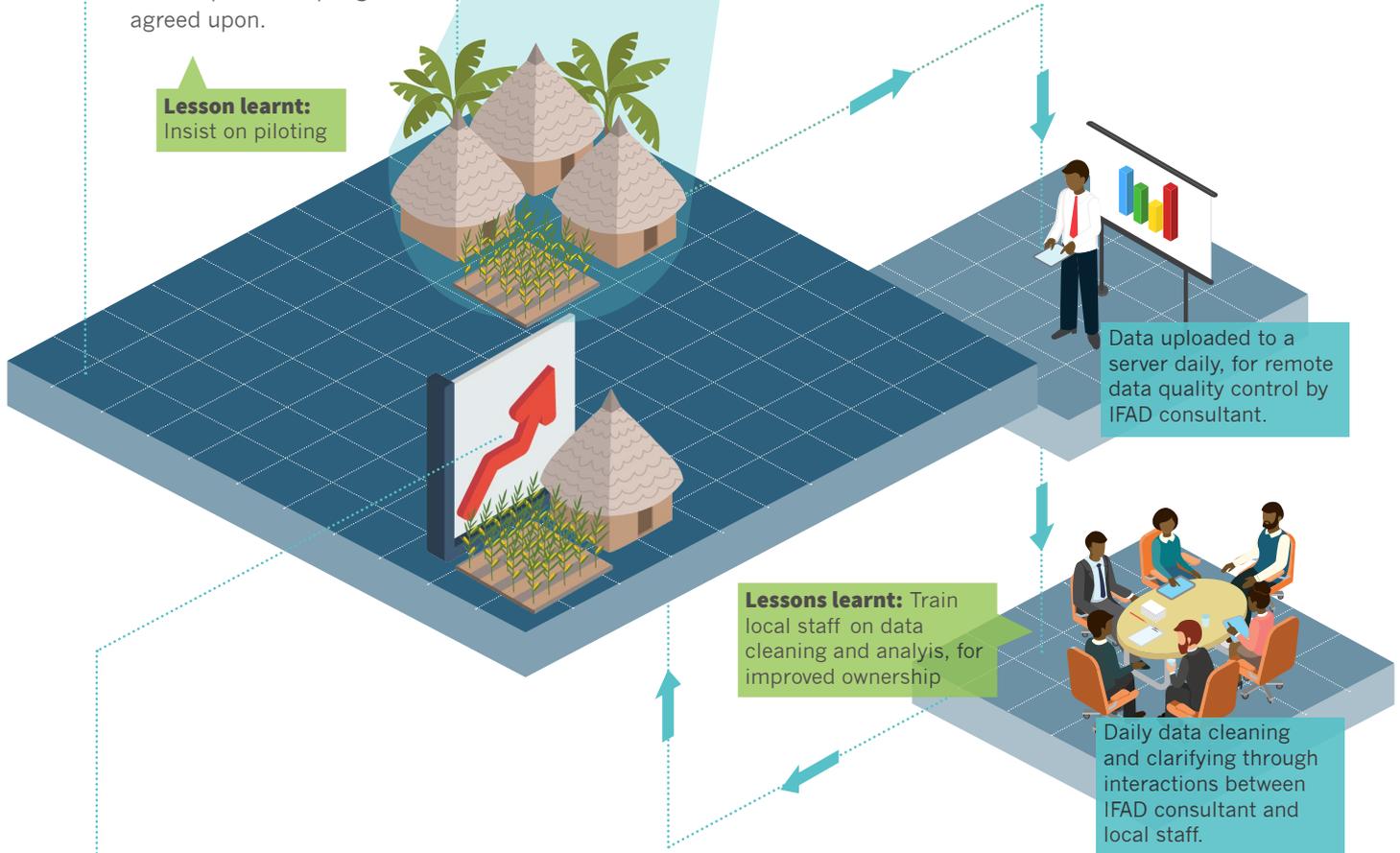
MPAT's survey instrument has 143 questions that cover the 11 focus areas described on the previous page. Households are interviewed as a participatory means to integrate smallholder farmer perceptions and needs in project design and implementation, in order to effectively achieve household resilience.

## 1 Preparation

Basic information on the aims and scope of MPAT is provided to the appropriate local officials. The size and scope of sampling is agreed upon.

**Lesson learnt:** Insist on piloting

**Lessons learnt:** Smaller data collection teams are more effective; Targeting strategies and village lists make sampling easier



Data uploaded to a server daily, for remote data quality control by IFAD consultant.

**Lessons learnt:** Train local staff on data cleaning and analysis, for improved ownership

Daily data cleaning and clarifying through interactions between IFAD consultant and local staff.

## 3 Data analysis

The MPAT tool kit includes an Excel analysis tool that produces results comparable across projects. The tool weighs, combines, and normalizes results to produce a limited number of summarised scores, ranging from low to high. Analysis can be globally comparative and also context specific.

Scores across households	Average	[min, max]
Food & Nutrition Security	82.3	[16.6, 100.0]
Domestic Water Supply	63.2	[21.1, 99.4]
Health & Health Care	55.9	[21.8, 98.8]
Sanitation & Hygiene	67.4	[46.5, 83.0]
Housing, Clothing & Energy	63.0	[20.5, 93.4]
Education	72.2	[37.5, 95.0]
Farm Assets	71.7	[10.0, 96.2]
Non-Farm Assets	52.0	[31.0, 84.6]
Exposure & Resilience to Shocks	44.2	[10.0, 100.0]
Gender & Social Equality	87.5	[37.7, 100.0]
Adaptation to climate change	52.7	[22.2, 81.9]

<sup>1</sup> Further information on the LDSF can be found at <http://landscapeportal.org/blog/2015/03/25/the-land-degradation-surveillance-framework-ldsf/>

# MPAT in action - Kenya and Eswatini

## Application in Kenya (Upper Tana-Nairobi Water Fund)

In 2017, a socioeconomic baseline household survey for the Upper Tana- Nairobi Water Fund project was carried out using MPAT, with approximately 30 additional questions to the project baseline survey on soil and water conservation practices. The objective of the survey was to provide baseline measurements of human well-being and water and land-use practices in water fund communities.

### Data collection

After dividing each micro-watershed into quadrants, supervisors and enumerators selected every fifth household. If no household member was found at a selected household and were not nearby, the next (sixth) household was selected for an interview. The field supervisor, with the help of village elders, made introductions and assigned the household to an enumerator. Eligible respondents had to be at least 18 years old and spend at least 9 months of the year in the household. Enumerators collected all data for the household survey using Android tablets.

The field supervisors conducted quality checking surveys for 10% of all interviews using an abbreviated version of the survey instrument. Survey data from each enumerator was uploaded daily to be quality checked by an MPAT expert from IFAD, who then communicated outliers, errors, and other suspicious data to the field supervisors for corrections. The field supervisors met with the enumerators every day to review field results, communicate feedback from the data quality checker, and plan the next day's activities.

### Challenges in data collection

- The estimated number of households based on remote sensing proved high. This created difficulties in obtaining the intended sample size in several watersheds. Where this was the case, instead of selecting every fifth household as planned, every fourth was selected. In micro-watersheds where the over-estimation was highest, the 'extra' interviews were redivided over other micro-watersheds.
- A few respondents were reluctant to reveal household member names for fear that their names could be misused in the upcoming general election. When this occurred, enumerators re-read the consent form.
- Some respondents were concerned about the tablet recording their data or their images. In these cases, enumerators explained the use of the tablet and told them about research ethics.
- A few respondents feared that their land could be taken by the government and were therefore not ready to report on the size of their land. In these cases, enumerators again explained the purpose of the survey.



1 000  
households  
surveyed



average interview time:  
**50minutes**

(longest interview: 63 minutes)

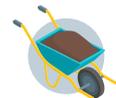
## Highlighted findings



Female-headed households (FHH) on average have a greater reliance on farming as their primary livelihood than male-headed households (MHH) (86% vs 65%)



Fewer FHH than MHH believe they could acquire a loan from a bank (46% vs 69%)

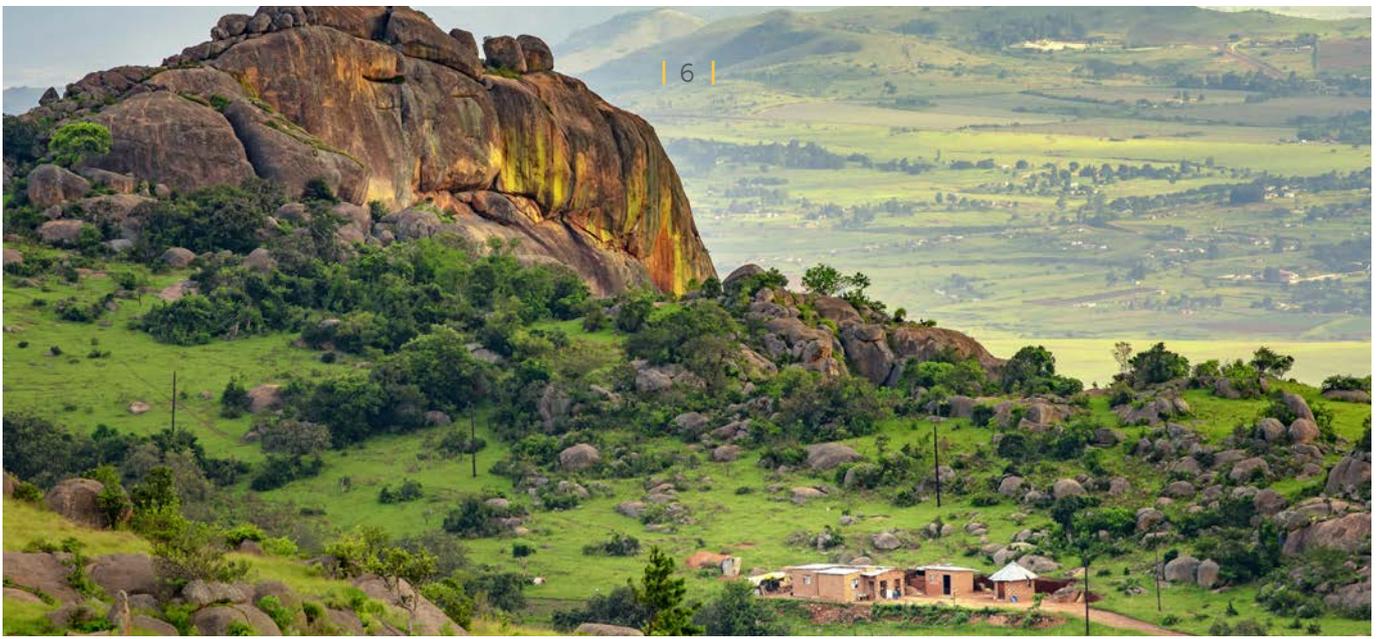


More FHH than MHH indicated they would not have the resources or ability to recover from a negative event (10% vs 3%) or rebuild their houses if destroyed in a disaster (32% vs 16%)

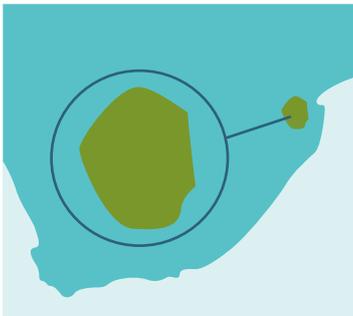


Conservation and soil erosion measures usually cover less than 50% of the land, regardless of the slope.





## Application in Eswatini (Smallholder Market-led Project, Climate-Smart Agriculture for Resilient Livelihoods)



980  
households  
surveyed



72% of the households are familiar with the word climate change and have heard it from the radio, which is the best used mean of communication that the households have access to.



63% of the households own livestock.

Using MPAT, the Smallholder Market-led Project (SMLP) carried out a baseline survey within the project development area in Eswatini, from February to June 2018.

The objective of the SMLP is for smallholder households in the Project Chiefdoms to sustainably enhance food and nutrition security and incomes through diversified climate resilient agricultural production and market-linkages. The Climate Smart Agriculture for Resilient Livelihoods (CSARL) project is fully integrated into the overall SMLP and ensures that resource planning and agricultural production are underpinned by sustainable land and water management (SLWM). The CSARL also strengthens national capacity for both promoting and monitoring the impacts of SLWM, which provides a sound ecological base for production. This will be specifically achieved through climate-smart agriculture approaches.

### Key results

- The most common source of water in the dry season are boreholes (34%) and, in the rainy season, rivers (33%).
- 63% households do not treat their water.
- Most primary source of light is electricity at 52% across Tinkhundla.
- Most used source of cooking is wood/sawdust/grass at 93%.
- Commonly used toilet is an enclosed pit (55%).
- 82% of households do not share toilets.
- An average of 58% discard non-edible waste within 25 meters of the household.
- On average 64% wash their hands before eating a meal, 34% sometimes do, while 2% rarely wash their hands.
- 87% of interviewed households have access to land, usually through common law tenure (89%).
- Most of the Project Development Area land type is sandy-draught (69%), 46% of the land is gently sloped.
- Main sources of income are casual labour (26%), social welfare (22%), formal labour (19%) and small business (16%).
- 98% of the households have adequate footwear and sufficient clothing for extreme weather. Drought/lack of water is the main negative event (54%) followed by strong winds and storms (34%).
- Capacity of communities to sustain hard conditions stands at 22% while 40% cannot.

# Examples of findings

## MPAT in the context of other data

Rank	GDP (2017) <sup>1</sup>	HDI <sup>2</sup>	% of rural pop. access to basic sanitation <sup>3</sup>	Hunger Index <sup>4</sup>	Gender Development Score <sup>5</sup>	∅ MPAT Score	MPAT Gender Score	MPAT Food & Nutrition Security Score	MPAT sanitation Score
1st	Seychelles	Seychelles	Eswatini	Lesotho	Lesotho	Seychelles	Seychelles	Seychelles	Seychelles
2nd	Eswatini	Kenya	Lesotho	Eswatini	Eswatini	Mali	Eswatini	Mali	Mali
3rd	Kenya	Eswatini	Zimbabwe	Kenya	Kenya	Kenya	Kenya	Kenya	Kenya
4th	Zimbabwe	Tanzania	Kenya	Mali	Tanzania	Lesotho	Lesotho	Zimbabwe	Lesotho
5th	Lesotho	Zimbabwe	Mali	Tanzania	Zimbabwe	Zimbabwe	Mali	Lesotho	Zimbabwe
6th	Tanzania	Lesotho	Tanzania	Zimbabwe	Mali	Tanzania	Zimbabwe	Tanzania	Tanzania
7th	Mali	Mali				Eswatini	Tanzania	Eswatini	Eswatini

<sup>1</sup> World Bank (2019). GDP (Current US\$). [online] Available at: <https://data.worldbank.org/indicator/ny.gdp.mktp.cd>

<sup>2</sup> UNDP (2019). Table 1. Human Development Index and its components. [online] Available at: <http://hdr.undp.org/en/composite/HDI>

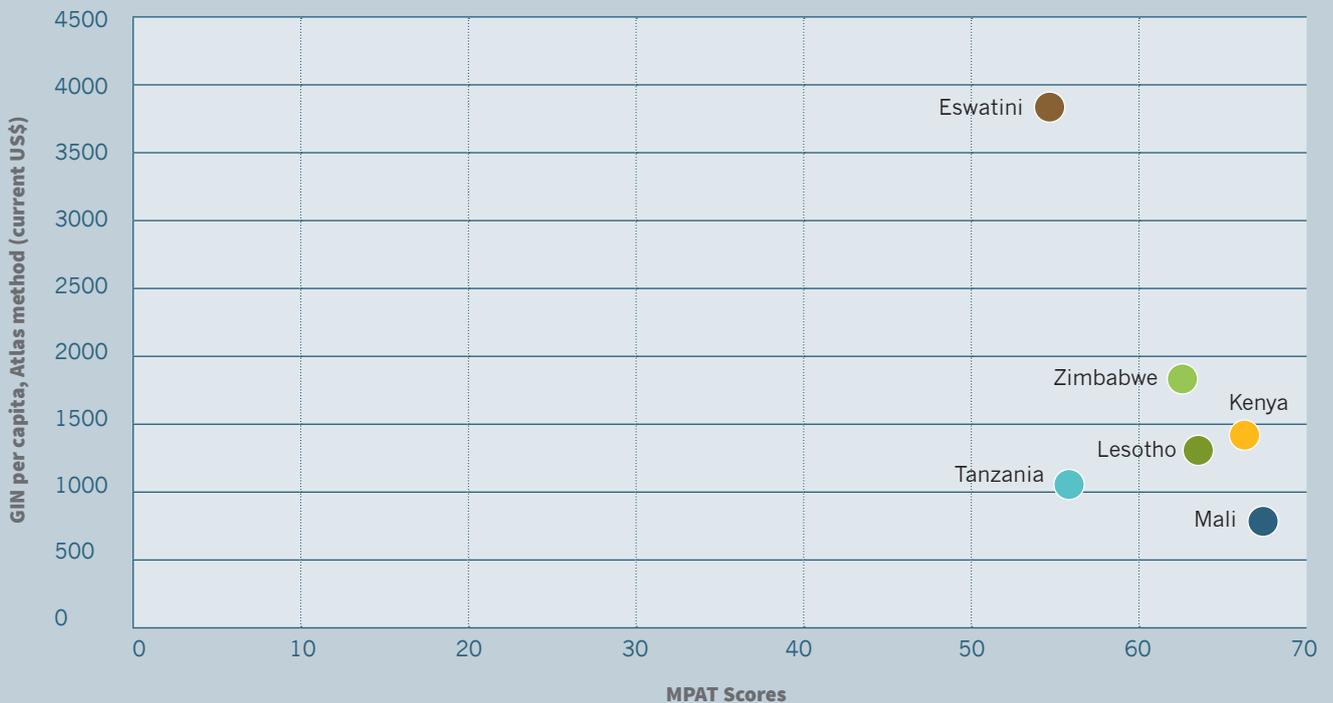
<sup>3</sup> World Bank (2019). People using safely managed sanitation services, rural (% of rural population) [online] Available at: <https://data.worldbank.org/indicator/SH.STA.SMSS.RU.ZS>

<sup>4</sup> 2018 Global Hunger Index Global Results. Global, Regional, and National Trends. [online] Available at: <https://www.globalhungerindex.org/results/>

<sup>5</sup> UNDP (2019). Table 4. Gender Development Index (GDI). [online] Available at: <http://hdr.undp.org/en/composite/GDI>

## GNI per Capita and MPAT Score

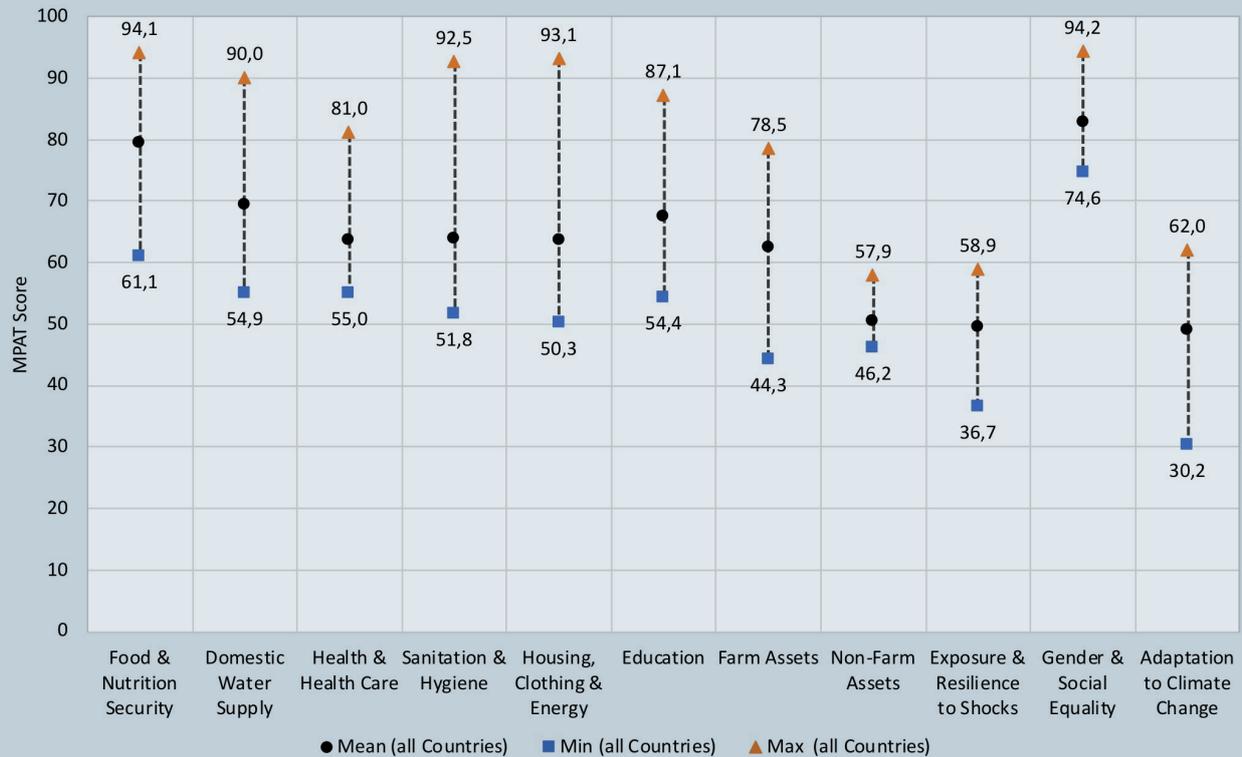
Poor countries (in terms of GNI per capita) score highly in MPAT and vice versa. This could be an indication of relative deprivation in richer countries.



# Examples of findings (continued)

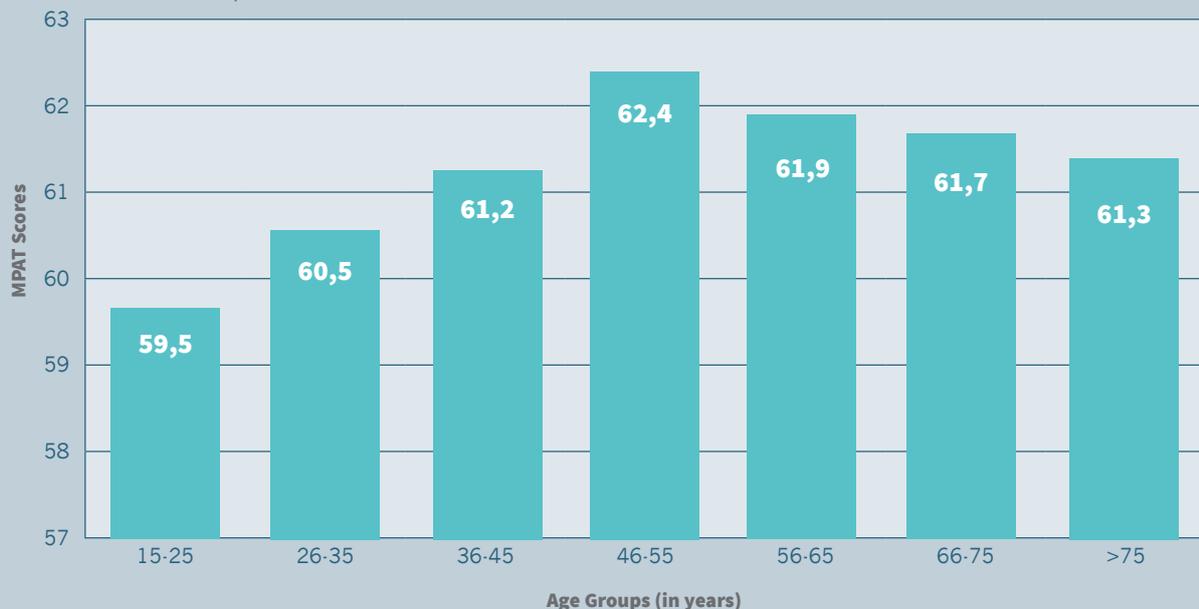
## Cross-country MPAT Scores

All countries have significant challenges in terms of non-farm assets, adaptation to climate change, and exposure and resilience to shocks.



## MPAT Scores by Age Group of Head of Household

Until the age group 46-55, households with an older head score higher than those with younger one. After 55, this relationship inverts.



Further MPAT data and resources are available at:

<https://www.ifad.org/en/web/knowledge/publication/asset/39631564>

[www.resilientfoodsystems.co](http://www.resilientfoodsystems.co)

