

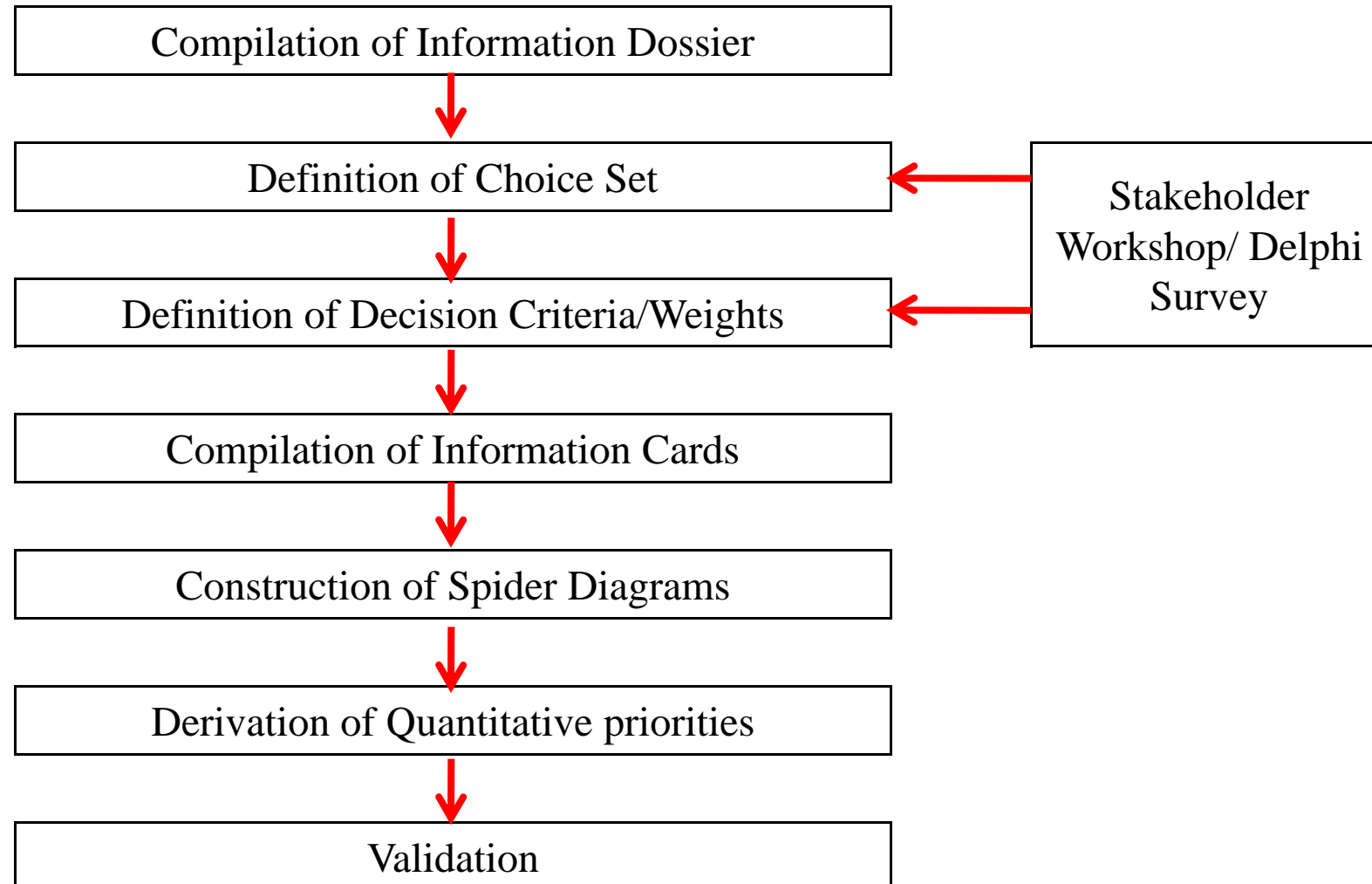


Aflandia Country Case Study

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Stages in prioritisation process



Capacity-building option sheet

Product(s) affected	
SPS issue/problem experienced	
Market(s) where SPS issue/problem is experienced	
Capacity-building option(s) that will address the issue/problem	

Capacity-building options

- Aflatoxin testing for groundnuts EU
- Hygiene controls for wild capture shrimp EU
- Antibiotic controls for aquaculture shrimp EU
- Pests status for pineapple Regional
- Residue monitoring for honey EU
- Pesticide controls for fresh produce EU
- Pest risk assessment for hot peppers USA
- FMD-free areas for beef Regional
- Aflatoxin controls for maize Regional
- Pest treatment for mango Regional

Capacity-building options

- Aflatoxin testing for groundnuts **EU 1-2-3**
- Hygiene controls for wild capture shrimp **EU 1-2-3**
- Antibiotic controls for aquaculture shrimp **EU 1-2-3**
- Pests status for pineapple **Regional 1-2-3**
- Residue monitoring for honey **EU 1-2-3**
- Pesticide controls for fresh produce **EU 4-5-6**
- Pest risk assessment for hot peppers **USA 4-5-6**
- FMD-free areas for beef **Regional 4-5-6**
- Aflatoxin controls for maize **Regional 4-5-6**
- Pest treatment for mango **Regional 4-5-6**

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Decision weight scoring sheet for Aflandia case

Criterion	Mean	SD
Up-front investment	15	6.8
On-going costs	9	4.4
Trade impact	21	9.2
Impact on domestic agricultural productivity	13	7.6
Impact on domestic public health	11	5.5
Impact on local environmental protection	7	3.9
Impact on poverty	14	6.5
Impact on vulnerable groups	11	6.0

Capacity-building option information sheet

Decision Criterion	Value	Details	Confidence
Cost			
Up-front investment			
On-going cost			
Trade impacts			
Change in absolute value of exports			
Domestic agri-food impacts			
Agricultural/fisheries productivity			
Domestic public health			
Environmental protection			
Social impacts			
Poverty impact			
Impact on vulnerable groups			

Measurement of decision criteria

Criterion	Measurement
Cost	
Up-front investment	Absolute value (\$)
On-going costs	Absolute value (\$)
Trade impact	
Absolute change in value of exports	Absolute value (\$)
Domestic agri-food impacts	
Agricultural/fisheries productivity	Large negative (-2) Negative (-1) No change (0) Positive (+1) Large positive (+2)
Domestic public health	
Environmental protection	
Social impacts	
Poverty impacts	Large negative (-2) to Large positive (+2) as above
Impact on vulnerable groups: <ul style="list-style-type: none">• Women• Children• Vulnerable areas• Smallholders/Artisanal fishers	Large negative (-2) to Large positive (+2) f as above or each group aggregated into single measure

Aflatoxin testing for groundnuts

Decision Criterion	Value	Details	Confidence
Cost			
Up-front investment	\$40,000	Costs of upgrading equipment, achieving accreditation, etc.	High
On-going cost	-\$9,497	Annual costs of maintaining accreditation \$6,000. Annual testing costs constant at \$5,000/year, making \$11,000 in total. Estimated cost of testing by customers in 5 years equal to \$20,497. Customer testing costs assumed to increase at rate of 10% in line with growth in exports.	Medium
Trade impacts			
Change in absolute value of exports	0	Tests already done and so no impact on exports	Medium
Domestic agri-food impacts			
Agricultural/fisheries productivity	0	None	High
Domestic public health	0	None	High
Environmental protection	0	None	High
Social impacts			
Poverty impact	0	None	High
Impact on vulnerable groups	0	None	High

Hygiene controls for wild capture shrimp

Decision Criterion	Value	Details	Confidence
Cost			
Up-front investment	\$55,000	Fisher training and provision of plastic storage boxes \$55,000	High
On-going cost	\$15,000	Costs of maintaining hygiene standards amongst fishers	High
Trade impacts			
Change in absolute value of exports	\$13 million	\$60 million x 90% to EU x 60% of production x 40% price premium in EU	Medium
Domestic agri-food impacts			
Agricultural/fisheries productivity	1	Reduce wastage and spoilage on fishing boats	High
Domestic public health	0	None	High
Environmental protection	0	None	High
Social impacts			
Poverty impact	2	30,000 poor fishers engaged in value chain	High
Impact on vulnerable groups	4	Area far along coast from capital with few other income opportunities (2); small fishers (2)	High

Antibiotic controls controls for aquaculture shrimp

Decision Criterion	Value	Details	Confidence
Cost			
Up-front investment	\$100,000	Implementing GAP protocol: \$90,000; Laboratory accreditation: \$10,000	High
On-going cost	\$5,000	Maintaining laboratory and accreditation	High
Trade impacts			
Change in absolute value of exports	\$11 million	\$60 million x growth at 5% per year for 5 years (\$76.6) x 90% exports to EU x 40% of production x 40% price premium in EU	Medium
Domestic agri-food impacts			
Agricultural/fisheries productivity	-1	Reduced productivity due to reduced use of antibiotics	Medium
Domestic public health	0	None	High
Environmental protection	-2	Expansion of farms	high
Social impacts			
Poverty impact	2	5,000 farms of average 10ha employing 30,000 largely landless people	High
Impact on vulnerable groups	2	Landless people (2)	High

Pest status for pineapple

Decision Criterion	Value	Details	Confidence
Cost			
Up-front investment	\$150,000	Costs of surveys	High
On-going cost	0	None	Medium
Trade impacts			
Change in absolute value of exports	\$50 million	Current exports \$25 million. Estimated to result in opening of new production areas that will increase exports by 200%	Medium
Domestic agri-food impacts			
Agricultural/fisheries productivity	0	None	Medium
Domestic public health	0	None	High
Environmental protection	-1	Expansion of pineapple plantations	High
Social impacts			
Poverty impact	0	Large plantations. Not labour intensive	Medium
Impact on vulnerable groups	2	Women employed in pack houses (2)	Medium

Residue monitoring for honey

Decision Criterion	Value	Details	Confidence
Cost			
Up-front investment	\$40,000	Establishing residue monitoring plan and first survey using overseas laboratories for testing	High
On-going cost	\$10,000	Maintaining and operating residue monitoring plan	High
Trade impacts			
Change in absolute value of exports	\$875,000	Currently export \$500,000 to regional market non-organic. Estimated 50% will be diverted to EU organic market at 50% premium (- \$125,000). Estimated exports to EU within 5 years of \$1 million annually	Medium
Domestic agri-food impacts			
Agricultural/fisheries productivity	1	Boost returns to producers because of organic premium	Medium
Domestic public health	0	None	High
Environmental protection	2	Supports maintenance of local biodiversity	Medium
Social impacts			
Poverty impact	2	30,000 small producers – high rates of poverty	High
Impact on vulnerable groups	6	Many women producers (2); marginal area (2); area with high rate of HIV/AIDS (2)	High

Pesticide controls for fresh produce

Decision Criterion	Value	Details	Confidence
Cost			
Up-front investment	\$250,000	Design and implementation of GAP	High
On-going cost	\$20,000	Maintaining certification programme	High
Trade impacts			
Change in absolute value of exports	\$5 million	20% of exports (from smallholders) diverted to Middle East at 50% lower prices if lose EU markets	Medium
Domestic agri-food impacts			
Agricultural/fisheries productivity	1	Likely to enhance productivity/reduce production costs due to greater efficiency	Medium
Domestic public health	1	Likely to reduce pesticides in produce sold to local markets	Medium
Environmental protection	1	Reduced pesticide release to environment	Medium
Social impacts			
Poverty impact	2	Many smallholders	Medium
Impact on vulnerable groups	2	Significant role of women (2)	Medium

Pest risk assessment for hot peppers

Decision Criterion	Value	Details	Confidence
Cost			
Up-front investment	\$10,000	Cost of PRA – pests known not to be present	High
On-going cost	0	None	Medium
Trade impacts			
Change in absolute value of exports	\$5 million	Two scenarios – zero because of trade costs; \$5 million exporter estimate	Low
Domestic agri-food impacts			
Agricultural/fisheries productivity	1	Higher-value crop for farmers	Medium
Domestic public health	0	None	High
Environmental protection	0	None	High
Social impacts			
Poverty impact	1	5,000 smallholders of moderate poverty level	High
Impact on vulnerable groups	0	Near to capital. Men	Medium

FMD-free areas for beef

Decision Criterion	Value	Details	Confidence
Cost			
Up-front investment	\$7 million	Costs of establishing FMD-free area	High
On-going cost	\$250,000	On-going control and vaccination costs etc.	High
Trade impacts			
Change in absolute value of exports	\$10 million	Estimated will bring about exports of \$10 million in 5 years and \$50 million in 10 years	Medium
Domestic agri-food impacts			
Agricultural/fisheries productivity	1	Reduce animal disease losses/veterinary drug costs	Medium
Domestic public health	0	None	High
Environmental protection	-2	Clearance of wildlife	Medium
Social impacts			
Poverty impact	-2	Mainly large farms. Negative impact on pastoralists	Medium
Impact on vulnerable groups	-2	Disruption of life of pastoralists	Medium

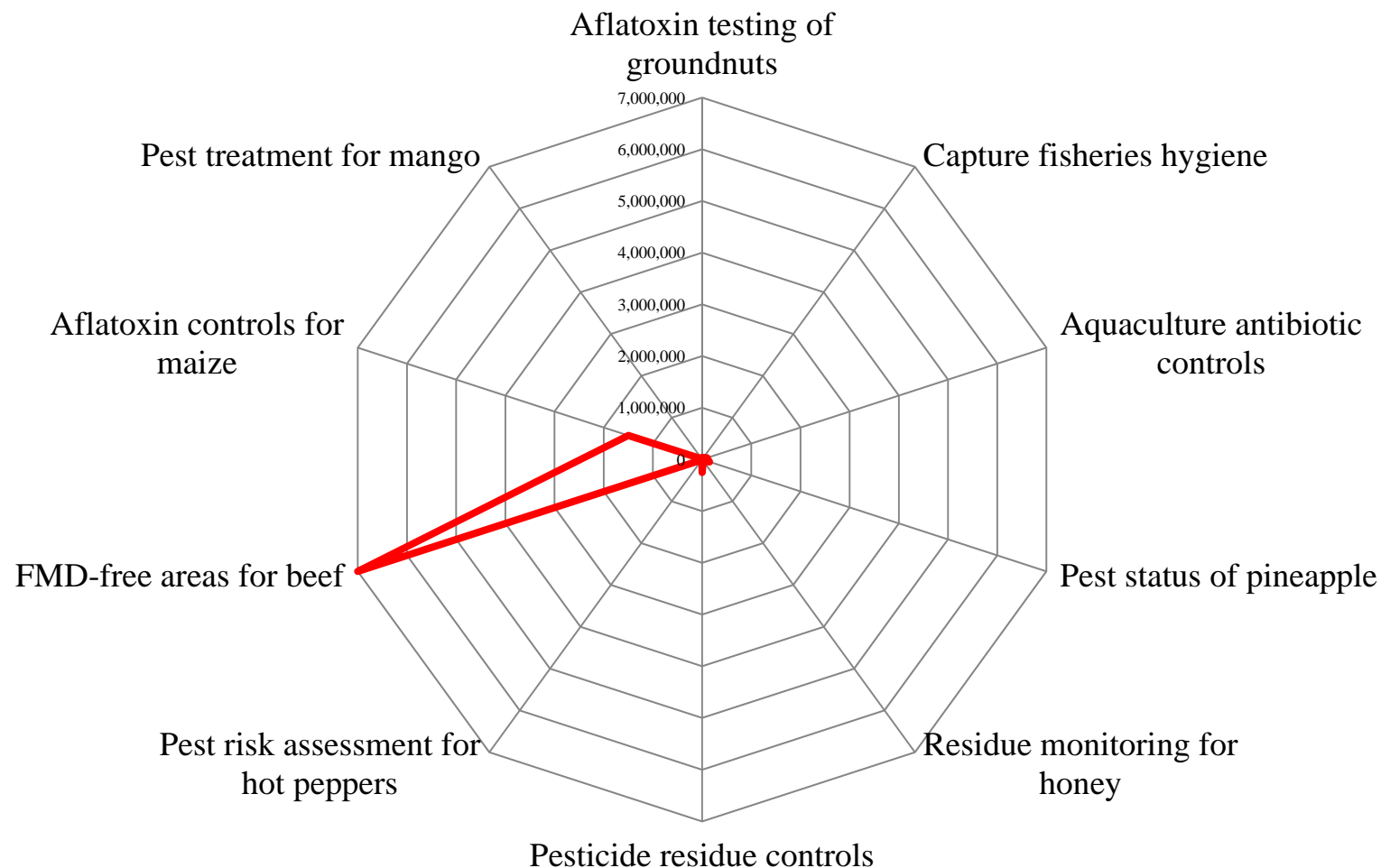
Aflatoxin controls for maize

Decision Criterion	Value	Details	Confidence
Cost			
Up-front investment	\$1.5 million	New post-harvest facilities. GAP implementation, etc.	High
On-going cost	\$100,000	Maintenance costs of \$100,000 per annum	High
Trade impacts			
Change in absolute value of exports	\$23 million	Current exports \$30 million to regional markets. Get price discount of 10% because of persistent excessive levels (\$30 million * 0.1 = \$3 million). New markets – two regional countries that won't import because of residues (\$20 million)	Medium
Domestic agri-food impacts			
Agricultural/fisheries productivity	2	Reduced rejection levels plus higher price from existing markets	Medium
Domestic public health	2	Also self-consumption and supply domestic market – will see decline in mycotoxin levels	Medium
Environmental protection	0	None	High
Social impacts			
Poverty impact	2	50% of production by poor smallholders	Medium
Impact on vulnerable groups	4	Production in marginal areas (2); many smallholders for which maize is a key source of livelihood.	Medium

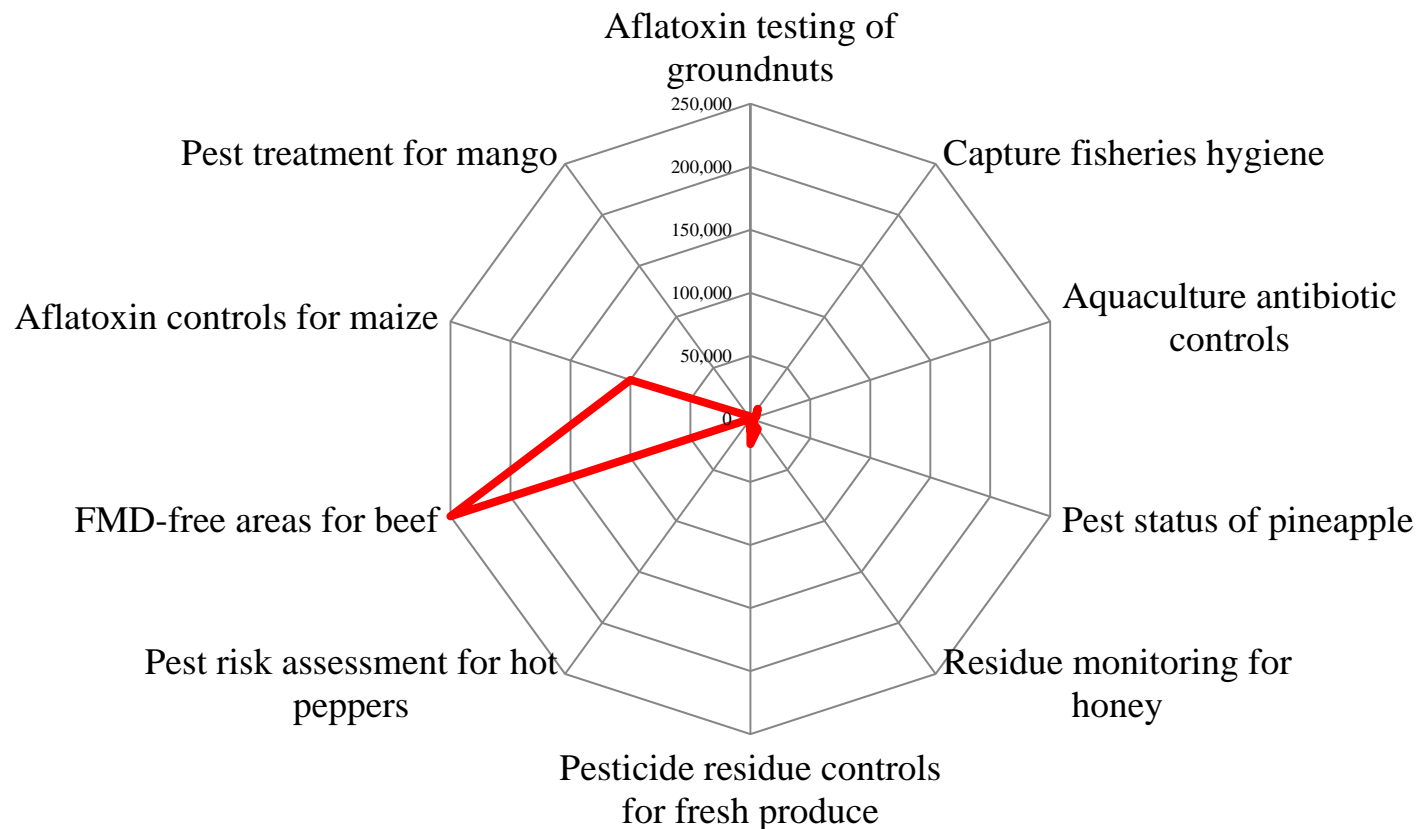
Pest treatment for mango

Decision Criterion	Value	Details	Confidence
Cost			
Up-front investment	\$15,000	Installation of hot water treatment facility	High
On-going cost	\$3,000	Annual maintenance costs	High
Trade impacts			
Change in absolute value of exports	\$500,000	No exports currently. Regional markets estimated at \$500,000 annually	Low
Domestic agri-food impacts			
Agricultural/fisheries productivity	0	None	High
Domestic public health	1	Suggested makes mango production viable and will enhance local consumption with nutritional benefits	Low
Environmental protection	1	Incentives to maintain trees	Low
Social impacts			
Poverty impact	2	50,000 poor producers with few alternative livelihood opportunities	Medium
Impact on vulnerable groups	6	Marginal area (2); High rate of HIV/AIDS (2), lots of involvement of women (2)	Medium

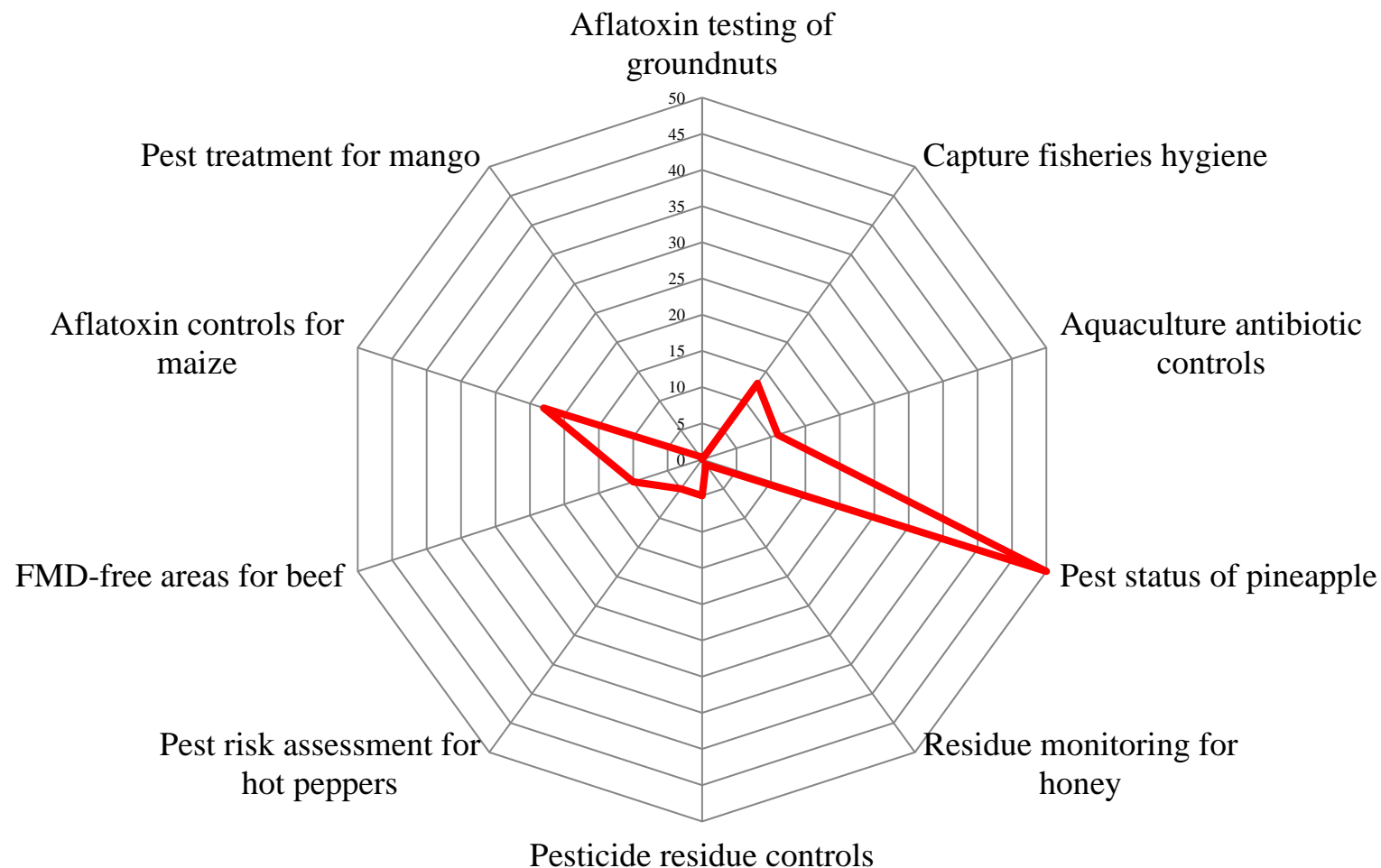
Aflandia decision criteria measures: up-front investment



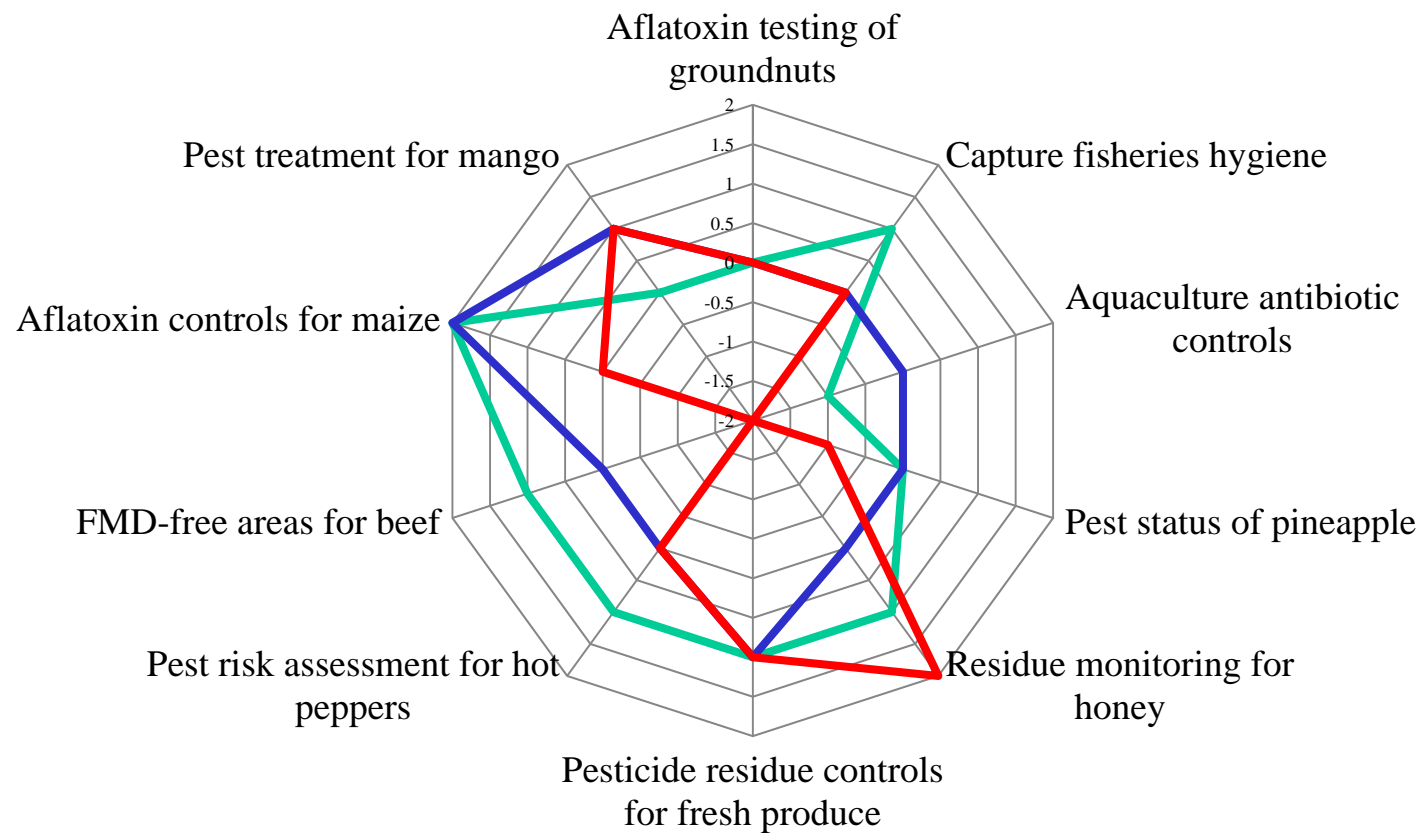
Aflandia decision criteria measures: on-going costs



Mozambique decision criteria measures: trade impact

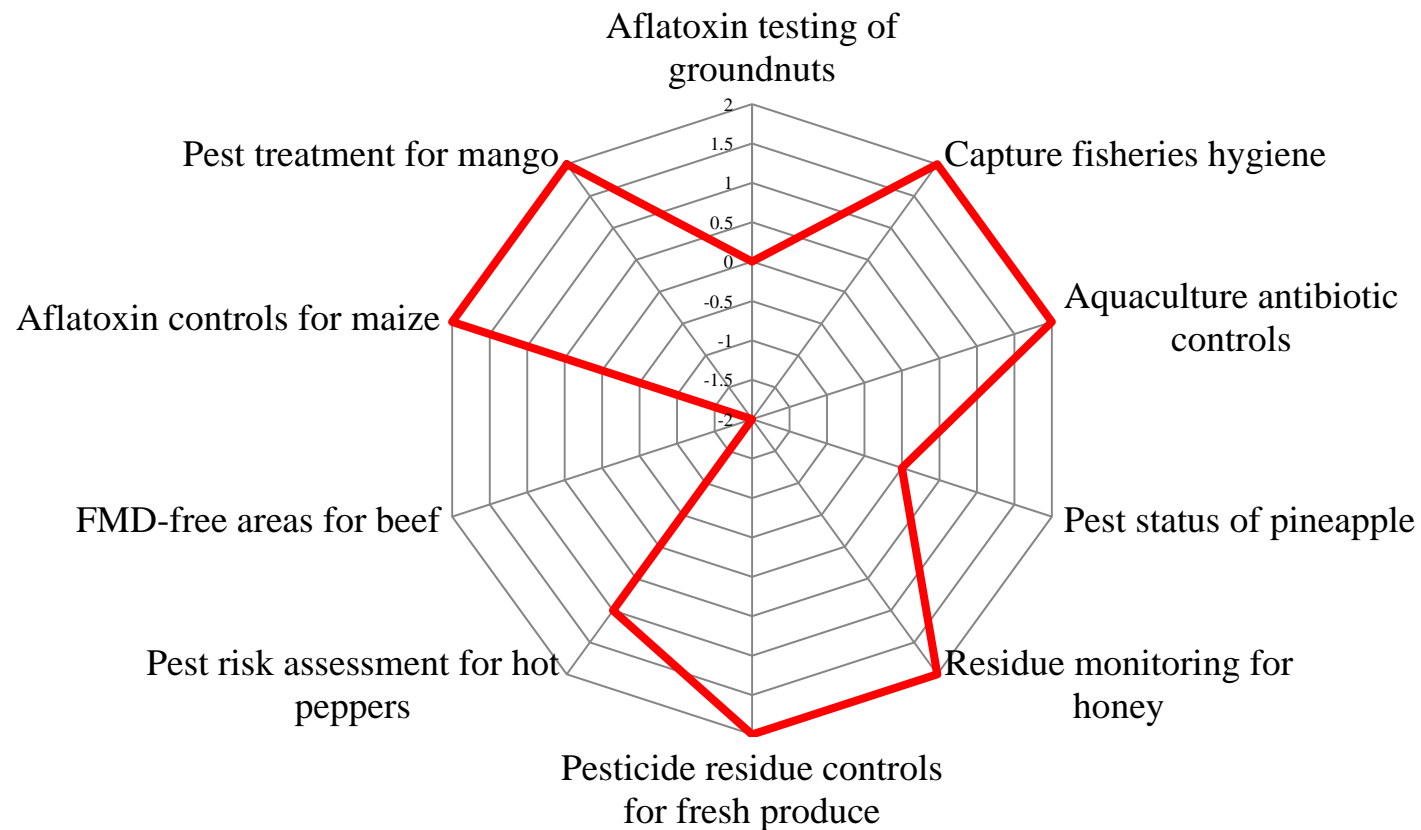


Aflandia decision criteria measures: domestic agri-food impacts

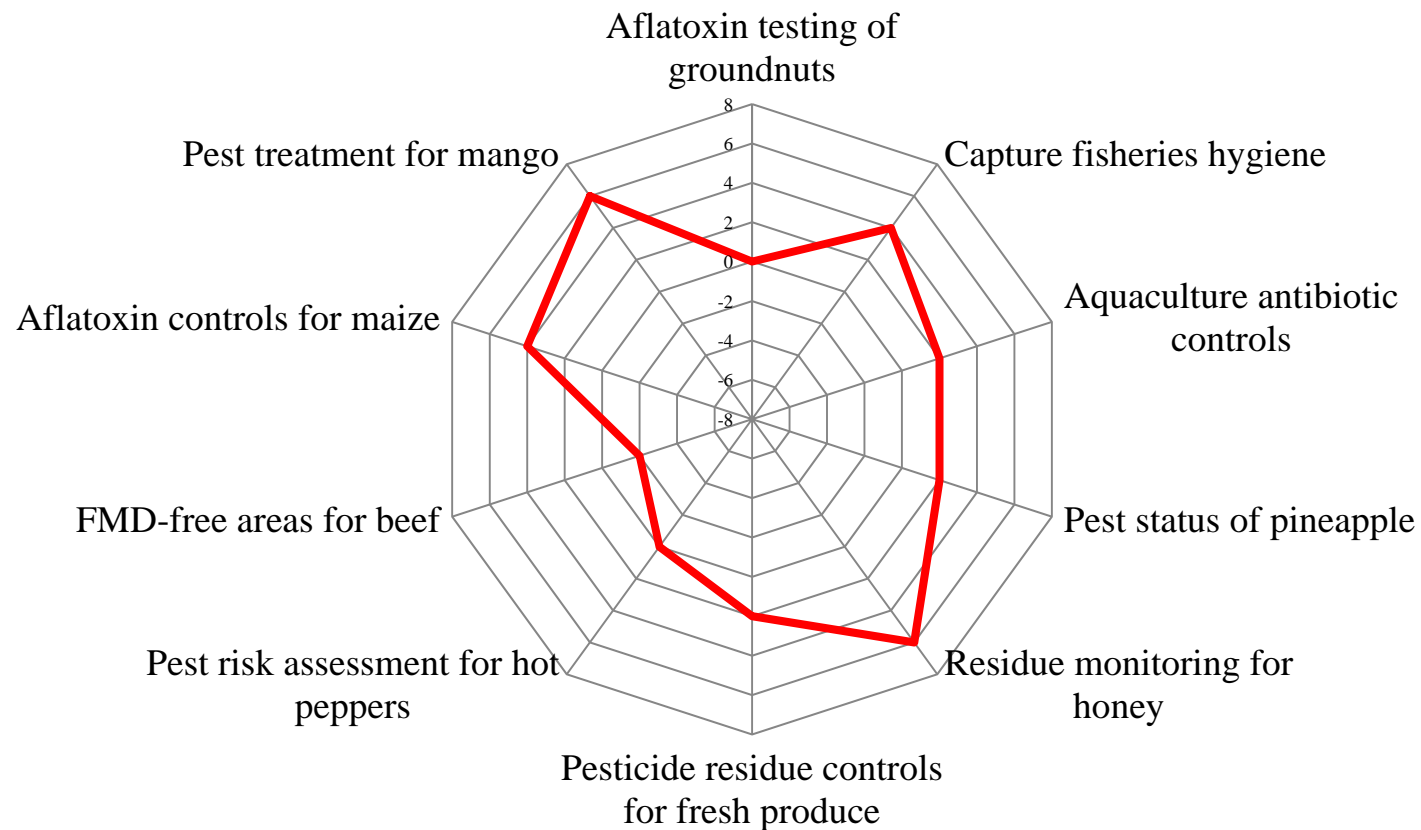


— Agricultural/fisheries productivity — Domestic public health — Environmental protection

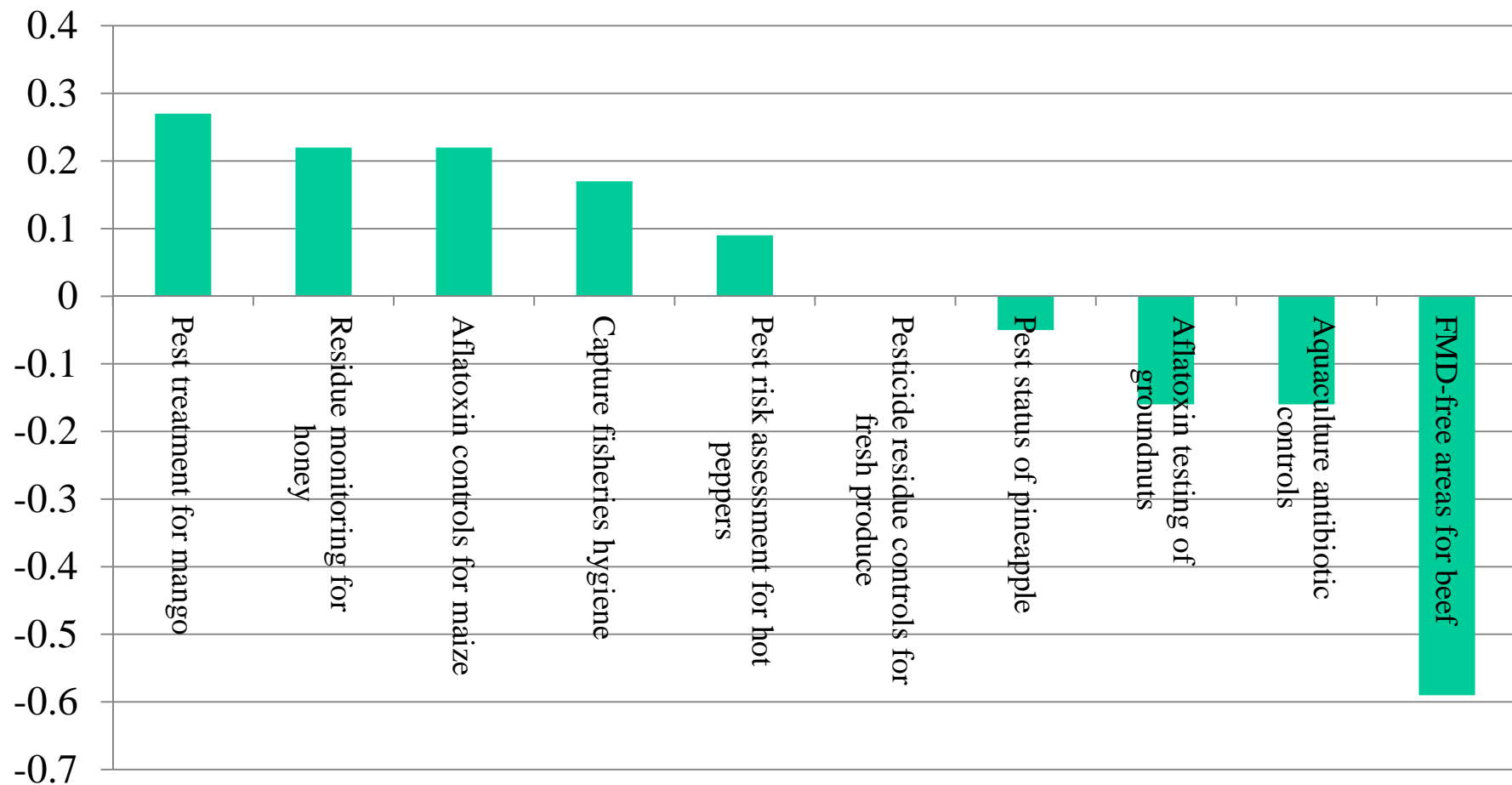
Aflandia decision criteria measures: poverty impact



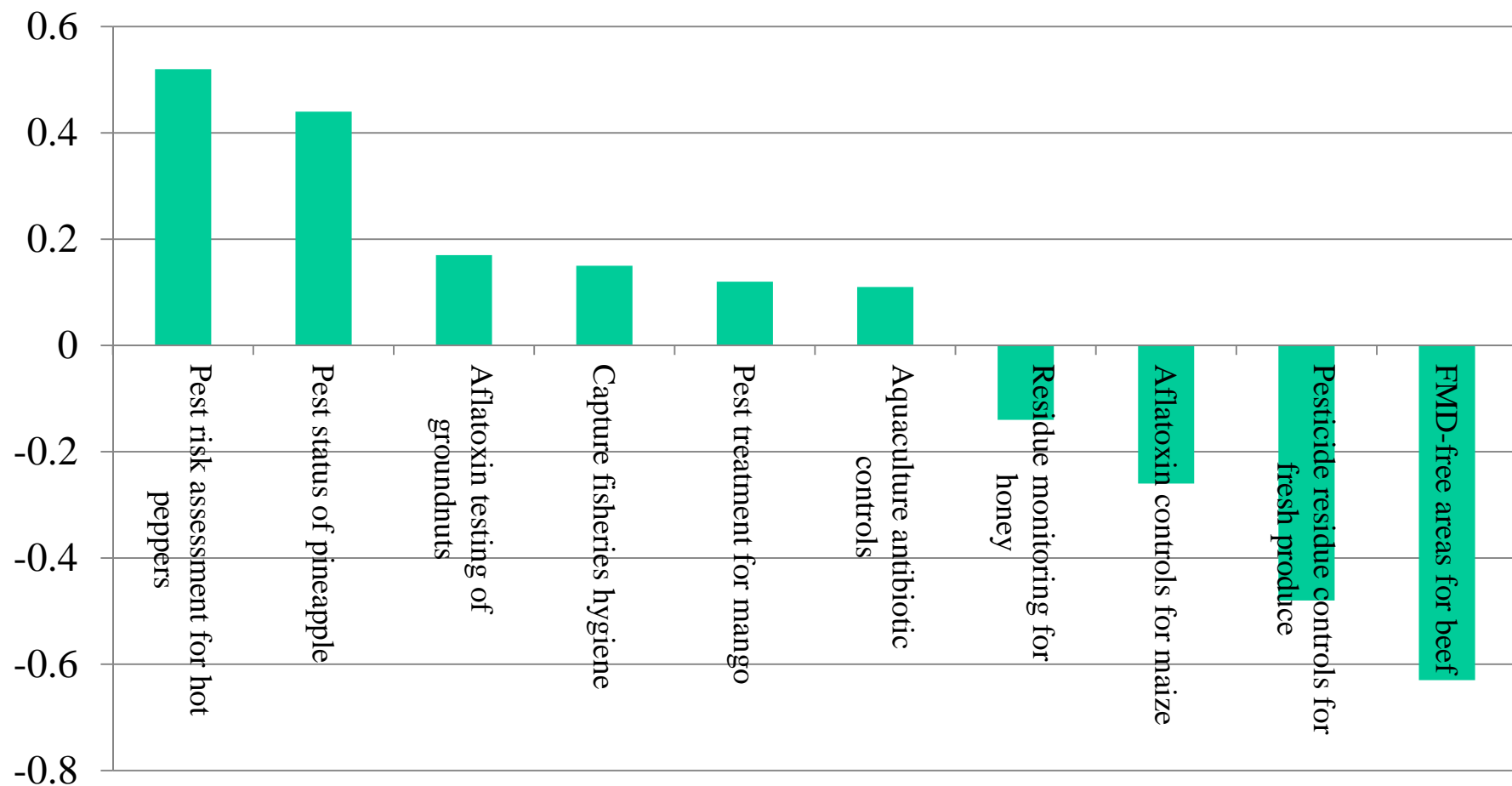
Aflandia decision criteria measures: impact on vulnerable groups



Aflandia equal weights model



Aflandia costs and trade impact model



Aflandia equal weights model with varying trade impact of PRA for hot pepper

