Innovation platforms for agricultural development

RESEARCH PROGRAM ON Roots, Tubers and Bananas

CGIAR

IITA Transforming African Agriculture 50 1967-2017

WAGENINGEN UNIVERSITY & RESEARCH

Complex Agricultural Problems

Key characteristics of complex agricultural problems

- Multi-dimensional
- Multi-level
- Multi-stakeholder
- Unsolvable and unpredictable

Multi-dimensional

- Biophysical
- Technological
- Social-cultural
- Economic
- Institutional
- Political

Multi-level

- (International
- District
- Community
- Household
- Farm
- Plot

Multi-stakeholder

- Farmers
- Private sector
- NGOs
- Researchers
- Government
- Media

Unsolvable and uncertain

- Uncertain how problems develop over time?
- (Un)desirable impact of "solutions"?
- Environmental and human inflicted shocks in the system

Multi-Stakeholder Innovation Processes

An example...

SF1: Purpose

1. For identifying problems and developing and testing innovations with a small group of people
2. For selecting existing innovations (in specific types of farmers or agro-ecological areas
3. For scaling existing innovations to reach large groups of farmers
4. Is the innovation platform approach the best way to achieve this?

Take-home messages

1. Innovation platforms are useful vehicles for assessing and overcoming complex agricultural problems
2. There are no silver-bullets. Innovation platforms need to be tailored to their specific context
3. Innovation platforms are resource intensive and require new ways of working
4. Platforms should not be given, but build on existing R4D-initiatives and service delivery networks

SF2: Enabling environment

1. Are there adequate human and financial resources (in/ex-tion, funds) to support innovation platforms?
2. Is there flexibility in (ag.)projects to support innovation platforms (e.g. to change focus)?
3. Is there institutional support to work in a demand-driven and participatory way?

SF3: Build on existing platforms and networks

1. Are there existing innovation platforms or other networks on which the project could build?
2. Are these platforms or networks willing and able to collaborate to achieve joint objectives?
3. Are their mechanisms in place to sustain the platform?

Agricultural Innovation

Integrated analyses and solutions

- Analysing problems/ exploring solutions is unlikely to be successful if dimensions are addressed separately
- Explore technological and non-technological innovations

Multi-level approach

- Intervention strategies that target different levels
- How to create an enabling environment for local innovation?
- Having interconnected multi-stakeholder networks across levels can facilitate local innovations to go to scale

Collective action

- Try to understand the obstacles and the problems that different stakeholder groups are facing
- Have better insights in what type of innovations are feasible, viable, and acceptable for different groups of stakeholders
- Support stakeholder to identify their interdependencies and explore incentives for collective action

Iterative and resilient

- Continuous interaction and learning for current and future problem solving
- Enhanced empowerment, ownership and capacity in stakeholder networks (people know how to find each other)
- Capacity to innovate; develop ability of individuals and groups to assess and overcome to complex problems

More information:

Marc Schut
m.schut@cgiar.org

Innovation platforms for agricultural development

RESEARCH PROGRAM ON Roots, Tubers and Bananas

CGIAR

IITA Transforming African Agriculture 50 1967-2017

WAGENINGEN UNIVERSITY & RESEARCH

Complex Agricultural Problems

Key characteristics of complex agricultural problems

- Multi-dimensional
- Multi-level
- Multi-stakeholder
- Unsolvable and unpredictable

Multi-dimensional

- Biophysical
- Technological
- Social-cultural
- Economic
- Institutional
- Political

Multi-level

- (International
- District
- Community
- Household
- Farm
- Plot

Multi-stakeholder

- Farmers
- Private sector
- NGOs
- Researchers
- Government
- Media

Unsolvable and uncertain

- Uncertain how problems develop over time?
- (Un)desirable impact of "solutions"?
- Environmental and human inflicted shocks in the system

Multi-Stakeholder Innovation Processes

An example...

SF1: Purpose

1. For identifying problems and developing and testing innovations with a small group of people
2. For piloting existing innovations in specific types of farmers or agro-ecological areas
3. For scaling existing innovations to reach large groups of farmers
4. Is the innovation platform approach the best way to achieve this?

Take-home messages

1. Innovation platforms are useful vehicles for assessing and overcoming complex agricultural problems
2. There are no silver-bullets. Innovation platforms need to be tailored to their specific context
3. Innovation platforms are resource intensive and require new ways of working
4. Platforms should not be given, but build on existing R4D-initiatives and service delivery networks

SF2: Enabling environment

1. Are there adequate human and financial resources (facilitation, funds) to support innovation platforms?
2. Is there flexibility in (ag.)projects to support innovation platforms (e.g. to change focus)?
3. Is there institutional support to work in a certain (more and participatory) way?

SF3: Build on existing platforms and networks

1. Are there existing innovation platforms or other networks on which the project could build?
2. Are these platforms or networks willing and able to collaborate to achieve joint objectives?
3. Are their mechanisms in place to sustain the platform?

Agricultural Innovation

Integrated analyses and solutions

- Analysing problems/ exploring solutions is unlikely to be successful if dimensions are addressed separately
- Explore technological and non-technological innovations

Multi-level approach

- Intervention strategies that target different levels
- How to create an enabling environment for local innovation?
- Having interconnected multi-stakeholder networks across levels can facilitate local innovations to go to scale

Collective action

- Try to understand the obstacles and the problems that different stakeholder groups are facing
- Have better insights in what type of innovations are feasible, viable, and acceptable for different groups of stakeholders
- Support stakeholder to identify their interdependencies and explore incentives for collective action

Iterative and resilient

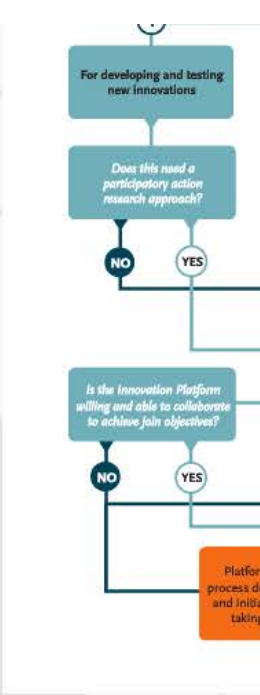
- Continuous interaction and learning for current and future problem solving
- Enhanced empowerment, ownership and capacity in stakeholder networks (people know how to find each other)
- Capacity to innovate: develop ability of individuals and groups to assess and overcome to complex problems

More information:

Marc Schut
m.schut@cgiar.org

Take-home messages

1. Innovation platforms are useful vehicles for assessing and overcoming complex agricultural problems
2. There are no silver-bullets: innovation platforms need to be tailored to their specific context
3. Innovation platforms are resource intensive and require new ways of working
4. Platforms should not by-pass, but build on existing R4D structures and service delivery networks



Complex Agricultural Problems

Key characteristics of complex agricultural problems

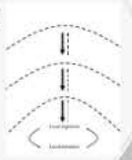
- Multi-dimensional
- Multi-level
- Multi-stakeholder
- Unsolvable and unpredictable

Multi-dimensional

- Biophysical
- Technological
- Social-cultural
- Economic
- Institutional
- Political

Multi-level

- (Inter)national
- District
- Community
- Household
- Farm
- Plot



Multi-stakeholder

- Farmers
- Private sector
- NGOs
- Researchers
- Government
- Media

Unsolvable and uncertain

- Uncertain how problems develop over time?
- (Un)desirable impact of 'solutions'?
- Environmental and human inflicted shocks in the system

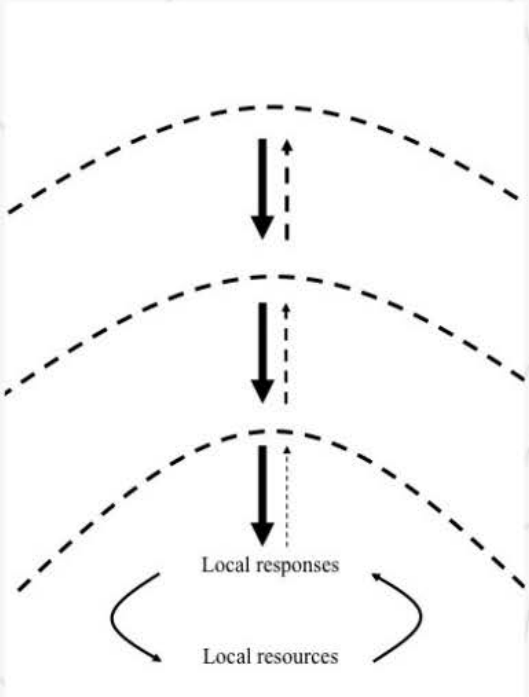
Tal
m
1. Innovation pl
for assessing
agricu
2. There are no
platforms nee
sp
3. Innovation
intensive and re
4. Platforms sho
on existing
service

Multi-dimensional

- Biophysical
- Technological
- Social-cultural
- Economic
- Institutional
- Political

Multi-level

- (Inter)national
- District
- Community
- Household
- Farm
- Plot



Multi-stakeholder

- Farmers
- Private sector
- NGOs
- Researchers
- Government
- Media

Unsolvable and uncertain

- Uncertain how problems develop over time?
- (Un)desirable impact of 'solutions'?
- Environmental and human inflicted shocks in the system

Innovation platforms for agricultural development

RESEARCH PROGRAM ON Roots, Tubers and Bananas

CGIAR

IITA Transforming African Agriculture 50 1967-2017

WAGENINGEN UNIVERSITY & RESEARCH

Complex Agricultural Problems

Key characteristics of complex agricultural problems

- Multi-dimensional
- Multi-level
- Multi-stakeholder
- Unsolvable and unpredictable

Multi-dimensional

- Biophysical
- Technological
- Social-cultural
- Economic
- Institutional
- Political

Multi-level

- (International
- District
- Community
- Household
- Farm
- Plot

Multi-stakeholder

- Farmers
- Private sector
- NGOs
- Researchers
- Government
- Media

Unsolvable and uncertain

- Uncertain how problems develop over time?
- (Un)desirable impact of "solutions"?
- Environmental and human inflicted shocks in the system

Multi-Stakeholder Innovation Processes

An example...

SF1: Purpose

1. For identifying problems and developing and testing innovations with a small group of people
2. For piloting existing innovations in specific types of farmers or agro-ecological areas
3. For scaling existing innovations to reach large groups of farmers
4. Is the innovation platform approach the best way to achieve this?

Take-home messages

1. Innovation platforms are useful vehicles for assessing and overcoming complex agricultural problems
2. There are no silver-bullets. Innovation platforms need to be tailored to their specific context
3. Innovation platforms are resource intensive and require new ways of working
4. Platforms should not be given, but build on existing R4D-initiatives and service delivery networks

SF2: Enabling environment

1. Are there adequate human and financial resources (facilitation, funds) to support innovation platforms?
2. Is there flexibility in (ag.)projects to support innovation platforms (e.g. to change focus)?
3. Is there institutional support to work in a demand-driven and participatory way?

SF3: Build on existing platforms and networks

1. Are there existing innovation platforms or other networks on which the project could build?
2. Are these platforms or networks willing and able to collaborate to achieve joint objectives?
3. Are their mechanisms in place to sustain the platform?

Agricultural Innovation

Integrated analyses and solutions

- Analysing problems/ exploring solutions is unlikely to be successful if dimensions are addressed separately
- Explore technological and non-technological innovations

Multi-level approach

- Intervention strategies that target different levels
- How to create an enabling environment for local innovation?
- Having interconnected multi-stakeholder networks across levels can facilitate local innovations to go to scale

Collective action

- Try to understand the obstacles and the problems that different stakeholder groups are facing
- Have better insights in what type of innovations are feasible, viable, and acceptable for different groups of stakeholders
- Support stakeholder to identify their interdependencies and explore incentives for collective action

Iterative and resilient

- Continuous interaction and learning for current and future problem solving
- Enhanced empowerment, ownership and capacity in stakeholder networks (people know how to find each other)
- Capacity to innovate; develop ability of individuals and groups to assess and overcome to complex problems

More information:

Marc Schut
m.schut@cgiar.org

Agricultural Innovation

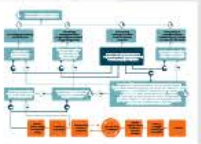
ulti-Stakeholder
ovation Processes

xample...

ILRI

SF1: Purpose

1. For identifying problems and developing and testing innovations with a small group of people
2. For tailoring existing innovations to specific types of farmers or agro-ecological areas
3. For 'scaling' existing innovations to reach large groups of farmers
4. Is the innovation platform approach the best way to achieve this?



SF2: Enabling environment

1. Are there adequate human and financial resources (facilitator, funds) to support innovation platforms?
2. Is there flexibility in our project to support innovation platforms (e.g. to change focus)?
3. Is there institutional support to work in a demand-driven and participatory way ?

SF3: Build on existing platforms and networks

1. Are there existing innovation platforms or other networks on which the project could build?
2. Are those platforms or networks willing and able to collaborate to achieve joint objectives?
3. Are their mechanisms in place to sustain the platform?

Integrated analyses and solutions

- Analysing problems/ exploring solutions is unlikely to be successful if dimensions are addressed separately
- Explore technological and non-technological innovations

Multi-level approach

- Intervention strategies that target different levels
- How to create an enabling environment for local innovation?
- Having interconnected multi-stakeholder networks across levels can facilitate local innovations to go to scale

Collective action

- Try to understand the obstacles and the problems that different stakeholder groups are facing
- Have better insights in what type of innovations are feasible, viable, and acceptable for different groups of stakeholders
- Support stakeholder to identify their interdependencies and explore incentives for collective action

Iterative and resilient

- Continuous interaction and learning for current and future problem solving
- Enhanced empowerment, ownership and capacity in stakeholder networks (people know how to find each other)
- Capacity to innovate: develop ability of individuals and groups to assess and overcome to complex problems

Integrated analyses and solutions

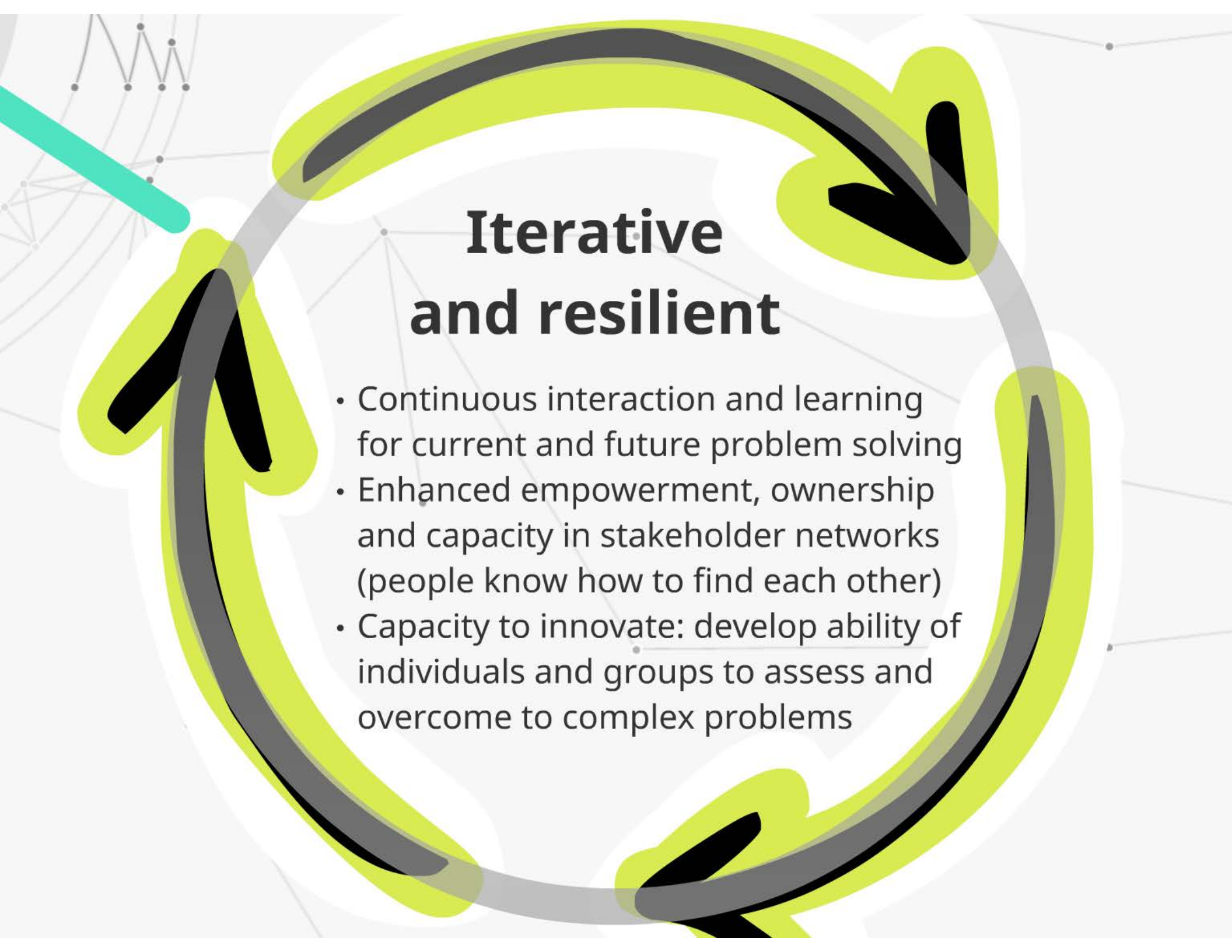
- Analysing problems/ exploring solutions is unlikely to be successful if dimensions are addressed separately
- Explore technological and non-technological innovations

Multi-level approach

- Intervention strategies that target different levels
- How to create an enabling environment for local innovation?
- Having interconnected multi-stakeholder networks across levels can facilitate local innovations to go to scale

Collective action

- Try to understand the obstacles and the problems that different stakeholder groups are facing
- Have better insights in what type of innovations are feasible, viable, and acceptable for different groups of stakeholders
- Support stakeholder to identify their interdependencies and explore incentives for collective action


Iterative
and resilient
• Continuous interaction and learning for current and future problem solving
• Enhanced empowerment, ownership and capacity in stakeholder networks (people know how to find each other)
• Capacity to innovate: develop ability of individuals and groups to assess and overcome to complex problems

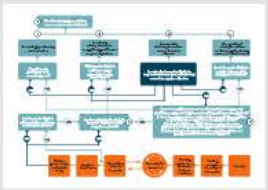
Multi-Stakeholder Innovation Processes

An example...

ILRI

SF1: Purpose

1. For identifying problems and developing and testing innovations with a small group of people
2. For tailoring existing innovations to specific types of farmers or agro-ecological areas
3. For 'scaling' existing innovations to reach large groups of farmers
4. Is the innovation platform approach the best way to achieve this?



Take-home messages

1. Innovation platforms are useful vehicles for assessing and overcoming complex agricultural problems
2. There are no silver-bullets: innovation platforms need to be tailored to their specific context
3. Innovation platforms are resource intensive and require new ways of working
4. Platforms should not by-pass, but build on existing R4D structures and service delivery networks

SF2: Enabling environment

1. Are there adequate human and financial resources (facilitator, funds) to support innovation platforms?
2. Is there flexibility in our project to support innovation platforms (e.g. to change focus)?
3. Is there institutional support to work in a demand-driven and participatory way ?

SF3: Build on existing platforms and networks

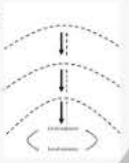
1. Are there existing innovation platforms or other networks on which the project could build?
2. Are those platforms or networks willing and able to collaborate to achieve joint objectives?
3. Are their mechanisms in place to sustain the platform?

i-dimensional

hysical
hological
l-cultural
omic
utional
cal

Multi-level

er)national
trict
nmunity
usehold
m
t



holder

Integrated a and solu

- Analysing problems/ exploring solutions is unlikely to be success if dimensions are addressed separately
- Explore technological and non-technologica innovations

Agricult

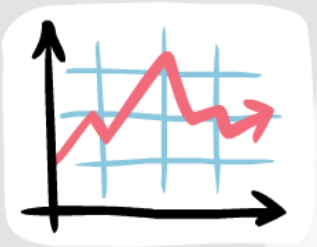
It and

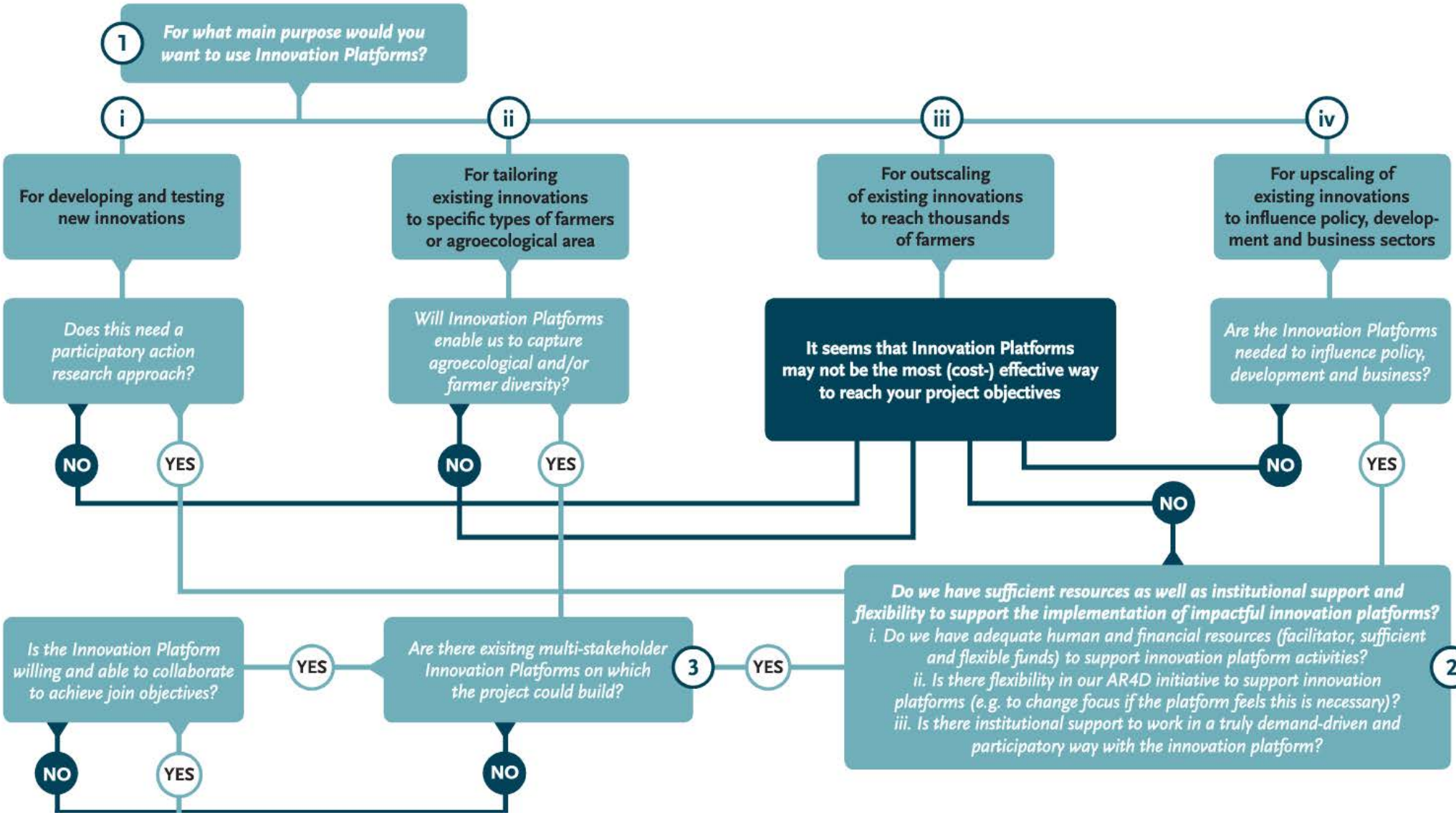
An example...

ILRI
INTERNATIONAL
LIVESTOCK RESEARCH
INSTITUTE

SF1: Purpose

1. For identifying problems and developing and testing innovations with a small group of people
2. For tailoring existing innovations to specific types of farmers or agro-ecological areas
3. For 'scaling' existing innovations to reach large groups of farmers
4. Is the innovation platform approach the best way to achieve this?



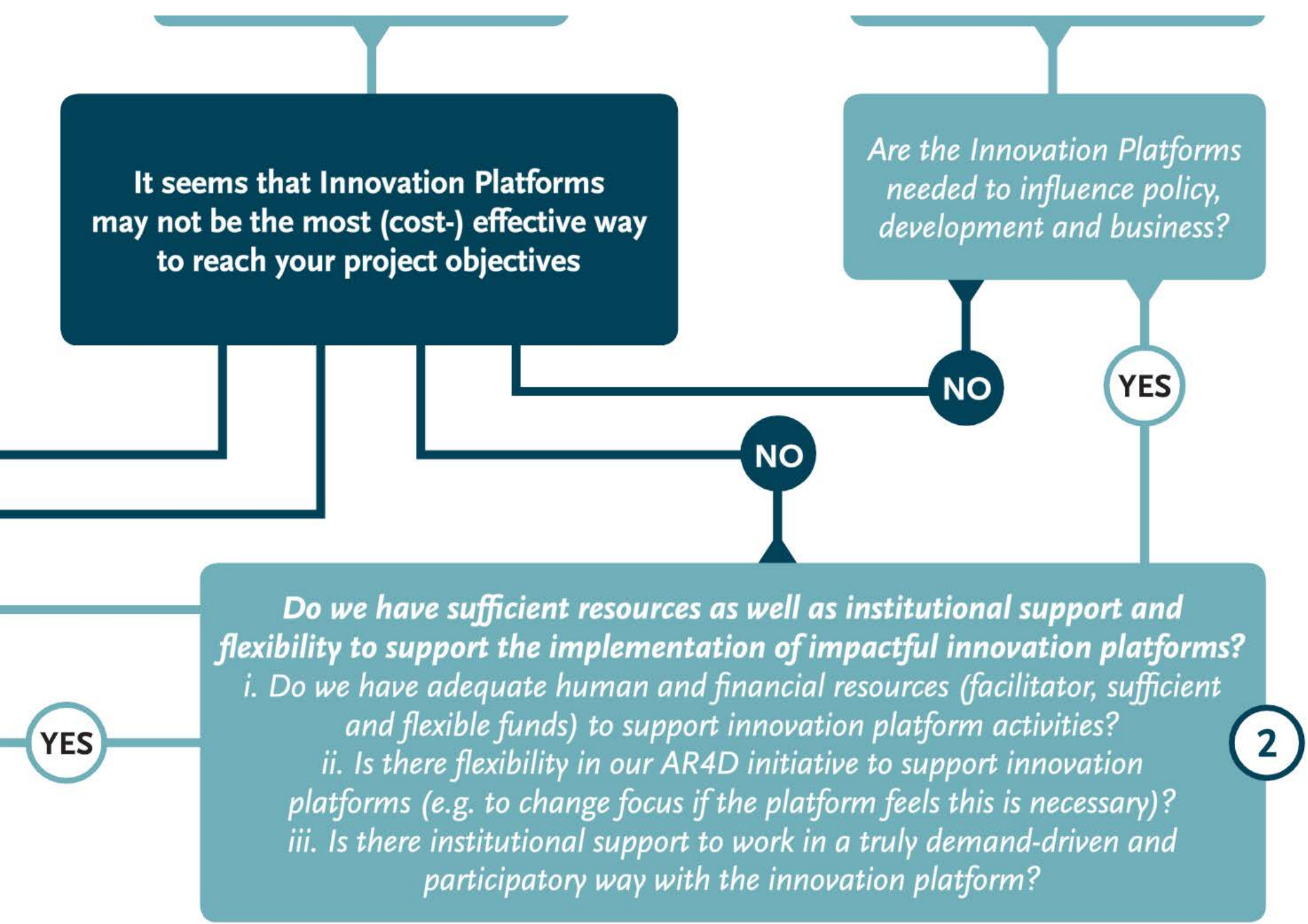

1
For what main purpose would you want to use Innovation Platforms?
i
ii
iii
iv
For developing and testing new innovations
For tailoring existing innovations to specific types of farmers or agroecological area
For outscaling of existing innovations to reach thousands of farmers
For upscaling of existing innovations to influence policy, development and business sectors
Does this need a participatory action research approach?
Will Innovation Platforms enable us to capture agroecological and/or farmer diversity?
It seems that Innovation Platforms may not be the most (cost-) effective way to reach your project objectives
Are the Innovation Platforms needed to influence policy, development and business?
NO
YES
NO
YES
NO
NO
YES
Do we have sufficient resources as well as institutional support and flexibility to support the implementation of impactful innovation platforms?
i. Do we have adequate human and financial resources (facilitator, sufficient and flexible funds) to support innovation platform activities?
ii. Is there flexibility in our AR4D initiative to support innovation platforms (e.g. to change focus if the platform feels this is necessary)?
iii. Is there institutional support to work in a truly demand-driven and participatory way with the innovation platform?
2
Is the Innovation Platform willing and able to collaborate to achieve join objectives?
YES
Are there exisitng multi-stakeholder Innovation Platforms on which the project could build?
3
YES
NO
YES
NO

Gov extension system: $7,50 f/yr
-> 17,000 farmers

SF2: Enabling environment

1. Are there adequate human and financial resources (facilitator, funds) to support innovation platforms?
2. Is there flexibility in our project to support innovation platforms (e.g. to change focus)?
3. Is there institutional support to work in a demand-driven and participatory way ?

- Innovation platforms - $85 f/yr -> 1500 farmers
- Farmer Field Schools: $53 f/yr -> 2500 farmers
- Gov extension system: $7,50 f/yr -> 17,000 farmers

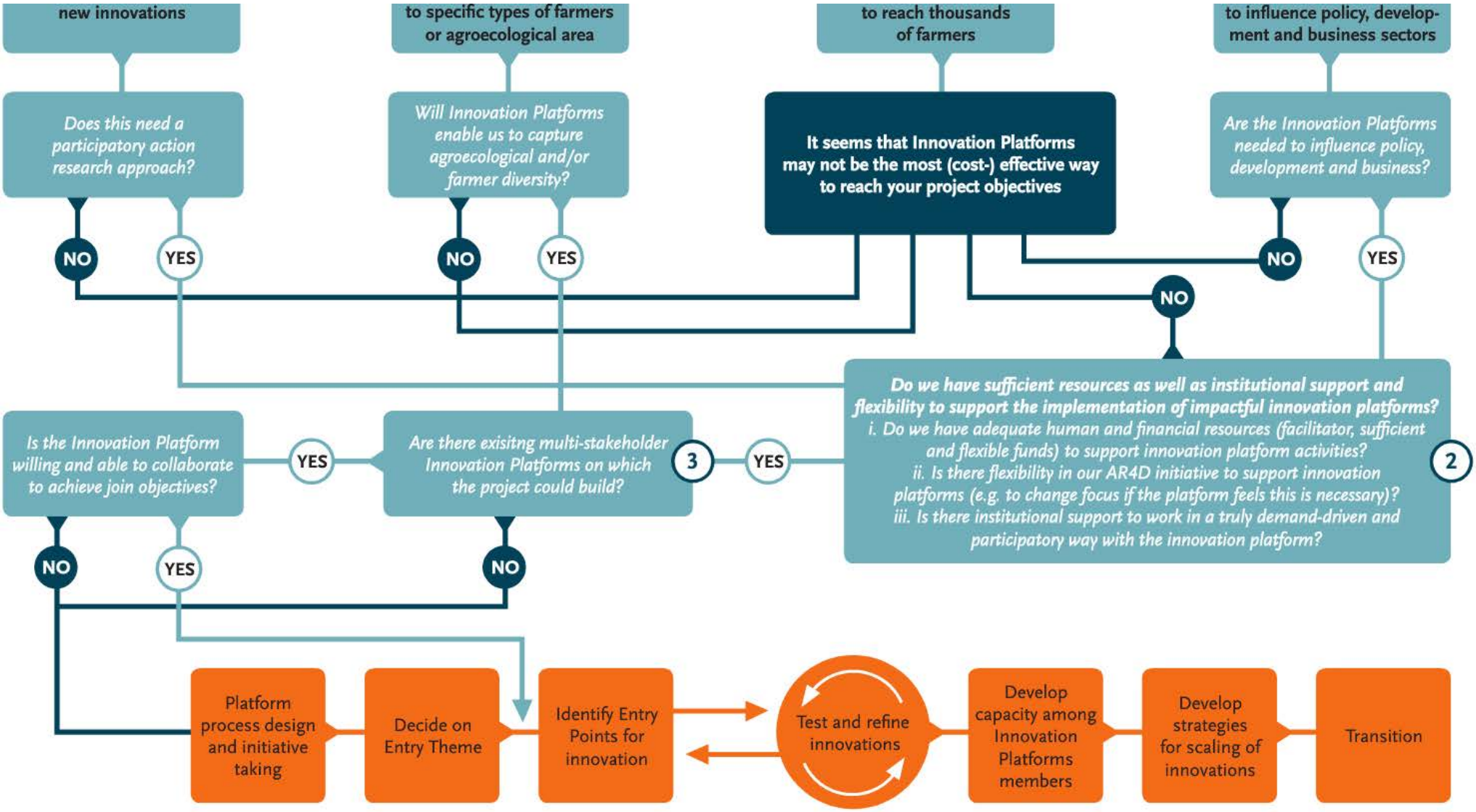

It seems that Innovation Platforms may not be the most (cost-) effective way to reach your project objectives
Are the Innovation Platforms needed to influence policy, development and business?
NO
YES
NO
YES
Do we have sufficient resources as well as institutional support and flexibility to support the implementation of impactful innovation platforms?
i. Do we have adequate human and financial resources (facilitator, sufficient and flexible funds) to support innovation platform activities?
ii. Is there flexibility in our AR4D initiative to support innovation platforms (e.g. to change focus if the platform feels this is necessary)?
iii. Is there institutional support to work in a truly demand-driven and participatory way with the innovation platform?
2

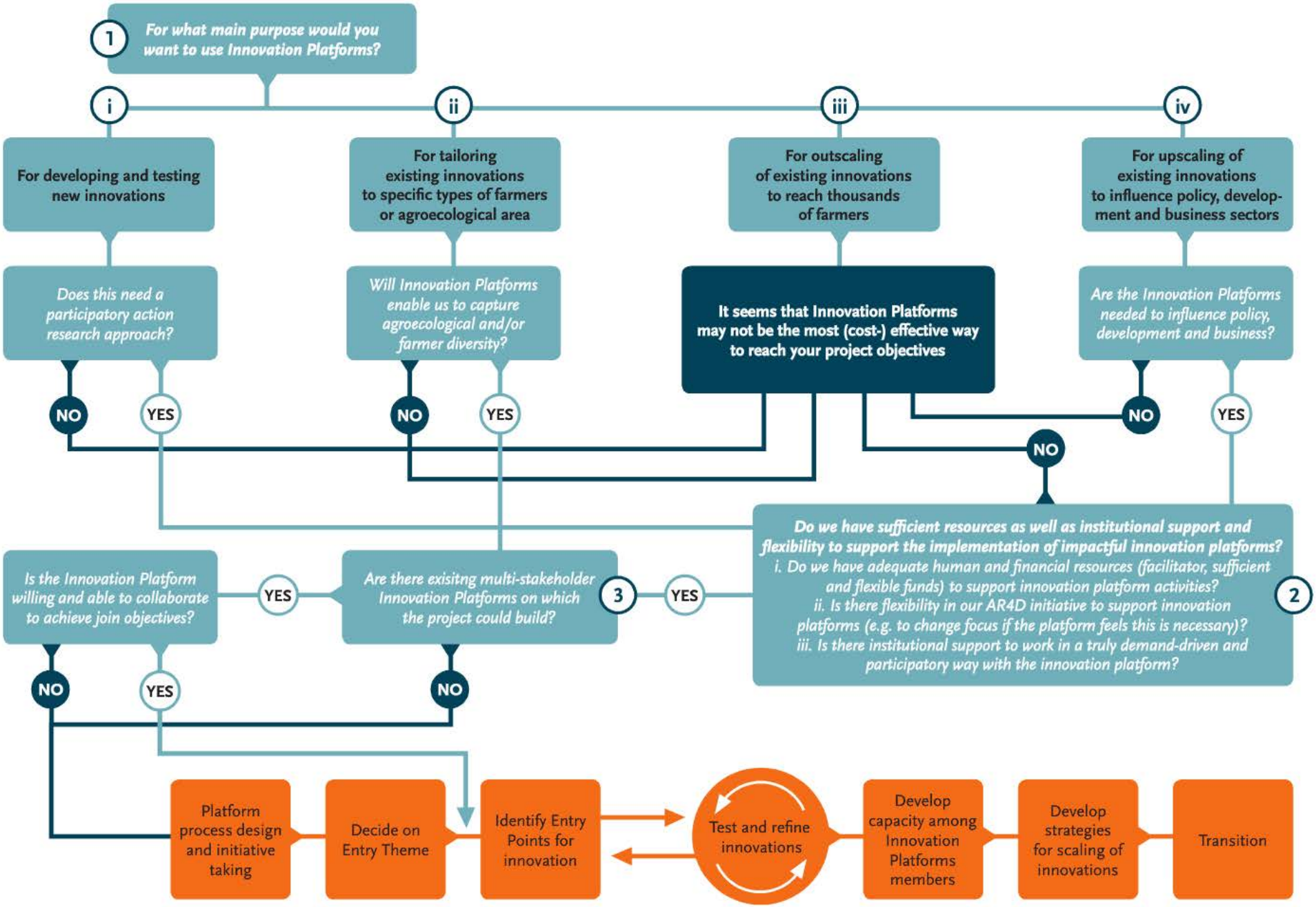
of working
, but build
s and
ks

wo

SF3: Build on existing platforms and networks

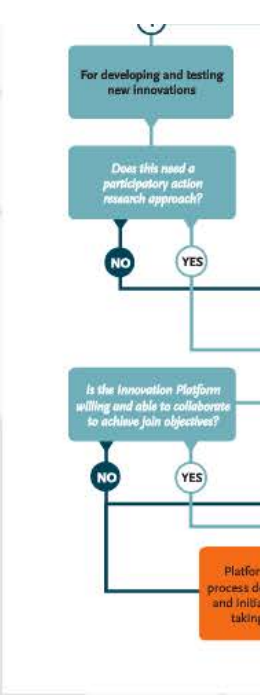
1. Are there existing innovation platforms or other networks on which the project could build?
2. Are those platforms or networks willing and able to collaborate to achieve joint objectives?
3. Are their mechanisms in place to sustain the platform?


new innovations
to specific types of farmers or agroecological area
to reach thousands of farmers
to influence policy, development and business sectors
Does this need a participatory action research approach?
Will Innovation Platforms enable us to capture agroecological and/or farmer diversity?
It seems that Innovation Platforms may not be the most (cost-) effective way to reach your project objectives
Are the Innovation Platforms needed to influence policy, development and business?
NO
YES
NO
YES
NO
NO
YES
Do we have sufficient resources as well as institutional support and flexibility to support the implementation of impactful innovation platforms?
i. Do we have adequate human and financial resources (facilitator, sufficient and flexible funds) to support innovation platform activities?
ii. Is there flexibility in our AR4D initiative to support innovation platforms (e.g. to change focus if the platform feels this is necessary)?
iii. Is there institutional support to work in a truly demand-driven and participatory way with the innovation platform?
2
Is the Innovation Platform willing and able to collaborate to achieve join objectives?
YES
Are there exisitng multi-stakeholder Innovation Platforms on which the project could build?
3
YES
NO
YES
NO
Platform process design and initiative taking
Decide on Entry Theme
Identify Entry Points for innovation
Test and refine innovations
Develop capacity among Innovation Platforms members
Develop strategies for scaling of innovations
Transition


1
For what main purpose would you want to use Innovation Platforms?
i
ii
iii
iv
For developing and testing new innovations
For tailoring existing innovations to specific types of farmers or agroecological area
For outscaling of existing innovations to reach thousands of farmers
For upscaling of existing innovations to influence policy, development and business sectors
Does this need a participatory action research approach?
Will Innovation Platforms enable us to capture agroecological and/or farmer diversity?
It seems that Innovation Platforms may not be the most (cost-) effective way to reach your project objectives
Are the Innovation Platforms needed to influence policy, development and business?
NO
YES
NO
YES
NO
NO
YES
Do we have sufficient resources as well as institutional support and flexibility to support the implementation of impactful innovation platforms?
i. Do we have adequate human and financial resources (facilitator, sufficient and flexible funds) to support innovation platform activities?
ii. Is there flexibility in our AR4D initiative to support innovation platforms (e.g. to change focus if the platform feels this is necessary)?
iii. Is there institutional support to work in a truly demand-driven and participatory way with the innovation platform?
2
Is the Innovation Platform willing and able to collaborate to achieve join objectives?
YES
Are there exisitng multi-stakeholder Innovation Platforms on which the project could build?
3
YES
NO
YES
NO
Platform process design and initiative taking
Decide on Entry Theme
Identify Entry Points for innovation
Test and refine innovations
Develop capacity among Innovation Platforms members
Develop strategies for scaling of innovations
Transition

Take-home messages

1. Innovation platforms are useful vehicles for assessing and overcoming complex agricultural problems
2. There are no silver-bullets: innovation platforms need to be tailored to their specific context
3. Innovation platforms are resource intensive and require new ways of working
4. Platforms should not by-pass, but build on existing R4D structures and service delivery networks



Innovation platforms for agricultural development

RESEARCH PROGRAM ON Roots, Tubers and Bananas

CGIAR

IITA Transforming African Agriculture 50 1967-2017

WAGENINGEN UNIVERSITY & RESEARCH

Complex Agricultural Problems

Key characteristics of complex agricultural problems

- Multi-dimensional
- Multi-level
- Multi-stakeholder
- Unsolvable and unpredictable

Multi-dimensional

- Biophysical
- Technological
- Social-cultural
- Economic
- Institutional
- Political

Multi-level

- (International
- District
- Community
- Household
- Farm
- Plot

Multi-stakeholder

- Farmers
- Private sector
- NGOs
- Researchers
- Government
- Media

Unsolvable and uncertain

- Uncertain how problems develop over time?
- (Un)desirable impact of "solutions"?
- Environmental and human inflicted shocks in the system

Multi-Stakeholder Innovation Processes

An example...

SF1: Purpose

1. For identifying problems and developing and testing innovations with a small group of people
2. For piloting existing innovations in specific types of farmers or agro-ecological areas
3. For scaling existing innovations to reach large groups of farmers
4. Is the innovation platform approach the best way to achieve this?

Take-home messages

1. Innovation platforms are useful vehicles for assessing and overcoming complex agricultural problems
2. There are no silver-bullets. Innovation platforms need to be tailored to their specific context
3. Innovation platforms are resource intensive and require new ways of working
4. Platforms should not be seen, but build on existing R4D-structures and service delivery networks

SF2: Enabling environment

1. Are there adequate human and financial resources (facilitator, funds) to support innovation platforms?
2. Is there flexibility in the projects to support innovation platforms (e.g. to change focus)?
3. Is there institutional support to work in a certain (new) and participatory way?

SF3: Build on existing platforms and networks

1. Are there existing innovation platforms or other networks on which the project could build?
2. Are these platforms or networks willing and able to collaborate to achieve joint objectives?
3. Are their mechanisms in place to sustain the platform?

Agricultural Innovation

Integrated analyses and solutions

- Analysing problems/ exploring solutions is unlikely to be successful if dimensions are addressed separately
- Explore technological and non-technological innovations

Multi-level approach

- Intervention strategies that target different levels
- How to create an enabling environment for local innovation?
- Having interconnected multi-stakeholder networks across levels can facilitate local innovations to go to scale

Collective action

- Try to understand the obstacles and the problems that different stakeholder groups are facing
- Have better insights in what type of innovations are feasible, viable, and acceptable for different groups of stakeholders
- Support stakeholder to identify their interdependencies and explore incentives for collective action

Iterative and resilient

- Continuous interaction and learning for current and future problem solving
- Enhanced empowerment, ownership and capacity in stakeholder networks (people know how to find each other)
- Capacity to innovate: develop ability of individuals and groups to assess and overcome to complex problems

More information:

Marc Schut
m.schut@cgiar.org

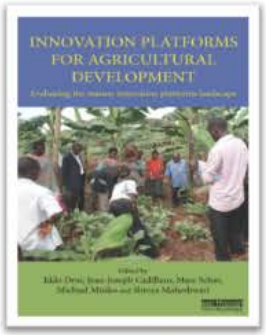
More information:

Science papers

SPP 2017 online

PLOS 2017 12(2)

Books



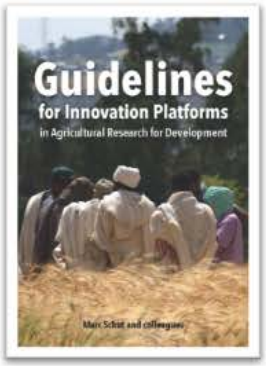
Earthscan 2016

Case studies

Farming Matters

Exp Ag 2017 online

Exp Ag 2016 52(4)



CGIAR RTB

CGIAR Humidtropics

Marc Schut

m.schut@cgiar.org