Monitoring and Evaluation within ESPA

Deliverable 1/5: ESPA Theory of Change

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Acronyms

CDKN	Climate Development Knowledge Network
CIFOR	Centre for International Forestry Research
DFID	Department for International Development
ESPA	Ecosystem Services for Poverty Alleviation
ESRC	Economic and Social Research Council
FAO	Food and Agriculture Organisation
HDI	Human Development Index
IUCN	International Union for the Conservation of Nature
KPI	Key Performance Indicators
MDG	Millennium Development Goal
NERC	National Environmental Research Council
RIR	Research Into Results (University of Edinburgh)(
TOC	Theory of Change
ToR	Terms of Reference
UNDP	UN Development Programme

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1. Introduction

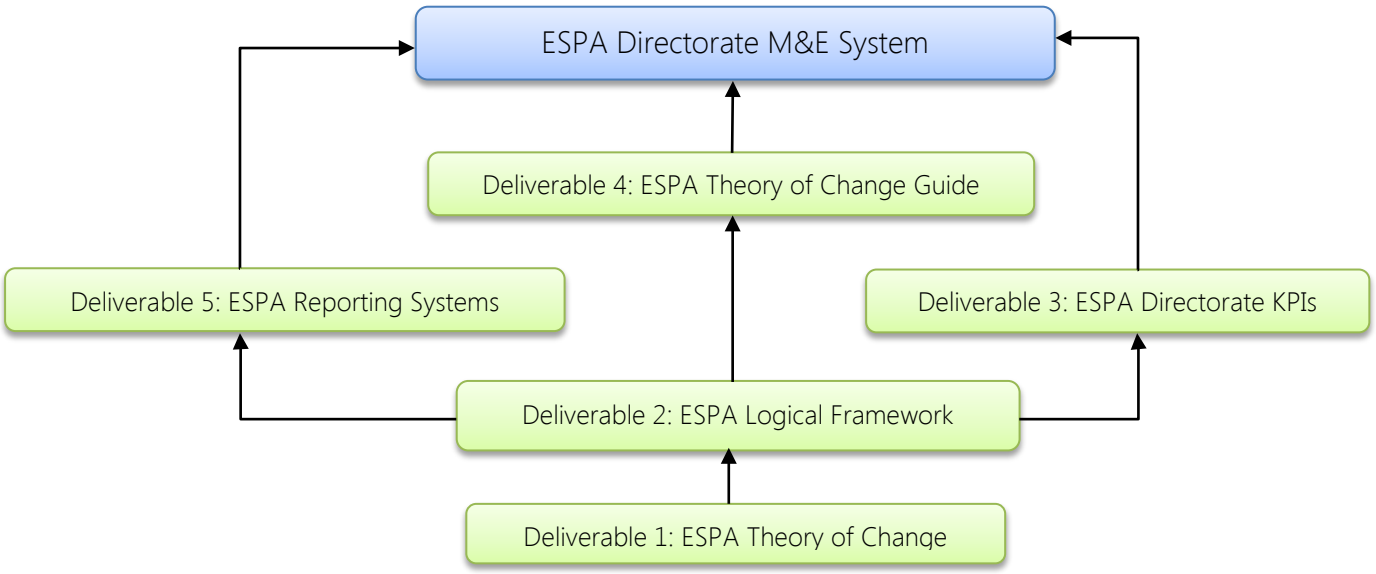
ESPA's research will improve the lives of poor people in developing countries by generating knowledge to understand how ecosystem services contribute to the alleviation of poverty. ESPA will achieve both excellent science and development impact.

This Report covers step 1 of the terms of reference for the contract 'M&E within the ESPA Directorate', namely the: **ESPA Theory of Change.** ESPA's Theory of Change (ToC), describes the change process through which it is anticipated that ESPA knowledge, taken up and applied by a wide diversity of stakeholders, nationally in developing countries and internationally, will contribute to development outcomes. A theory of change diagram accompanies this narrative.

This report provides an executive summary for the Theory of Change, as well as a more detailed narrative. Discussions with the ESPA Directorate and wider Programme management team regarding the Theory of Change (TOC), that were held over a period from mid-October to mid-November provided the basis for subsequent review and revision of the ESPA log frame indicators and the ESPA Directorate's Key Performance Indicators (KPIs). These are presented as deliverables 2 and 3 (see Figure 1 below).

A summary ToC 'guide' was produced by the M&E Team which is presented as deliverable 4. A review of the ESPA reporting systems is provided as deliverable 5.

Figure 1: Schematic of the ESPA M&E Deliverables



2. Theory of Change for ESPA: A Summary

2.1 Introduction

ESPA is an international interdisciplinary research programme. Its goal is to produce world-class research and evidence-based applications to support the sustainable management of ecosystem services to alleviate poverty, increase economic growth and enhance well-being for the poorest people in developing countries around the world.

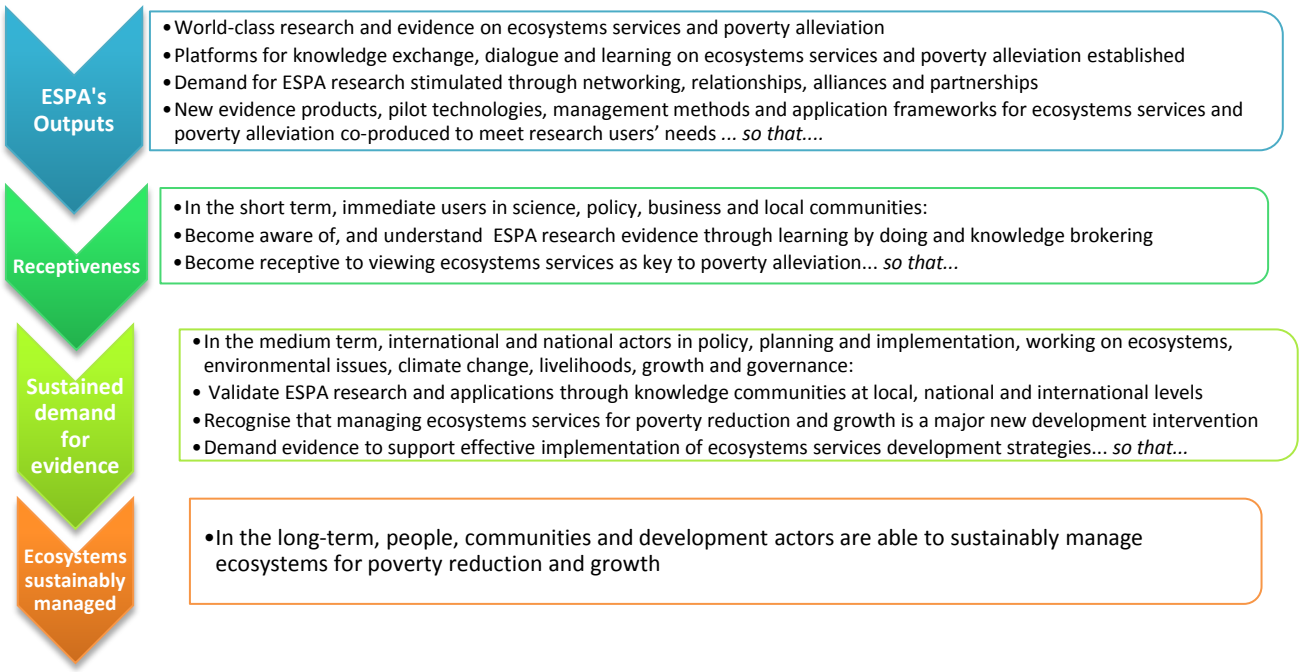
ESPA is supported by the UK's leading research councils, Natural Environment Research Council, the Economic and Social Research Council, and the Department for International Development.

2.2 ESPA's Theory of Change

ESPA's Theory of Change (ToC) presents a conceptual and logical progression of the changes that ESPA research must influence if it is to successfully contribute to development impacts for people and ecosystems.

It shows how and why ESPA research helps to influence thinking, behaviours and outcomes amongst its user communities, so that long-term improvements can be brought about in how ecosystems are managed sustainably for poverty reduction and growth. This pathway is represented in the ESPA ToC (full version available on ESPA's website and in Figure 3).

Figure 2: Simplified summary of ESPA's ToC



2.3 ESPA's impact concepts

Ecosystem services and poverty alleviation is an emerging area. ESPA's Theory of Change identifies that, to be successful, ESPA must actively engage in building and developing this new research, policy and practice field.

Through a logical cause-effect analysis, ESPA's ToC analysis identifies that, alongside world-class interdisciplinary research, ESPA must contribute to stimulating the sustainable demand for evidence on ecosystems services and poverty amongst the user communities it has identified as key to delivering the long-term development impacts.

The ToC recognises that ESPA is located within a wider set of international, national and local development actions on ecosystems, environmental issues, climate change, economic growth, livelihoods, poverty reduction, governance and many other issues. These all offer opportunities for collaboration and co-production of applications of ESPA research.

2.4 What does ESPA's Theory of Change mean for its stakeholders an potential collaborators?

2.4.1 What does it mean for researchers?

Researchers can use the ESPA ToC to map out their own impact pathway and identify the outcomes to which their project contributes. This helps in terms of conceptualising and reporting on their research impact. The ToC provides a framework for:

- Identifying evidence needs: for example, modelling work might deliver baseline descriptions of an ecosystem, insights into local people's decisions about land uses, and clear simulations of different policy scenarios for social and environmental implications of different policymaker choices.
- Identifying the stakeholder and user groups that need to be engaged for their particular project: for example, helping to support local people's needs for information to engage in negotiations with stakeholders from outside their community
- Identifying the behaviour changes that would ideally flow from research engagement: for example, collaborating with other organisations to contribute towards building a mandate and capacities amongst policy and local communities for a multi-stakeholder approach to ecosystem management.

2.4.2 What does it mean for funders and the ESPA Directorate?

For funders and the ESPA Directorate, the ESPA's ToC provides a 'backbone' for planning, managing and evaluating impact. It offers an overview of a complex programme, the impact pathway, expected results and explicit cause-effect assumptions related to each step. This provides:

- Stronger programme design: The outcome success drivers are identified so that the ESPA Directorate can optimise the programme's activities for contributing to results and impact.
- Clarity on risk levels: Clarity on cause-effect assumptions enable better risk management, identification of opportunities for innovation and evaluation.
- Identification of results, milestones and evaluation: Clear results framework that tracks, evidences and reports progress towards impact.
- Enables clear communication: Funders and Directorate are able to communicate based on a shared understanding of the different levels of impact, outcome, strategy and operations.

2.4.3 What does it mean for people wishing to collaborate with ESPA?

For people wishing to collaborate with ESPA, the ToC provides a snapshot of the whole programme, its impact pathway, and the programme outputs. It provides:

- Information about key outcome areas, user groups and policy processes that may offer an opportunity for joint work on shared objectives

- Information about ESPA outputs that may be useful inputs to others' work: for example technologies, management and application frameworks that may be relevant to those working on environmental issues, climate change, economic growth, livelihoods, poverty reduction, governance and many other issues.

3 ESPA Theory of Change: Full Narrative

3.1 The Conceptual Model

The ESPA Theory of change (ToC) is a conceptual model of how the programme activities are intended to stimulate short, medium and long-term changes to achieve the overall goal. ESPA's potential for impact is enhanced if we understand:

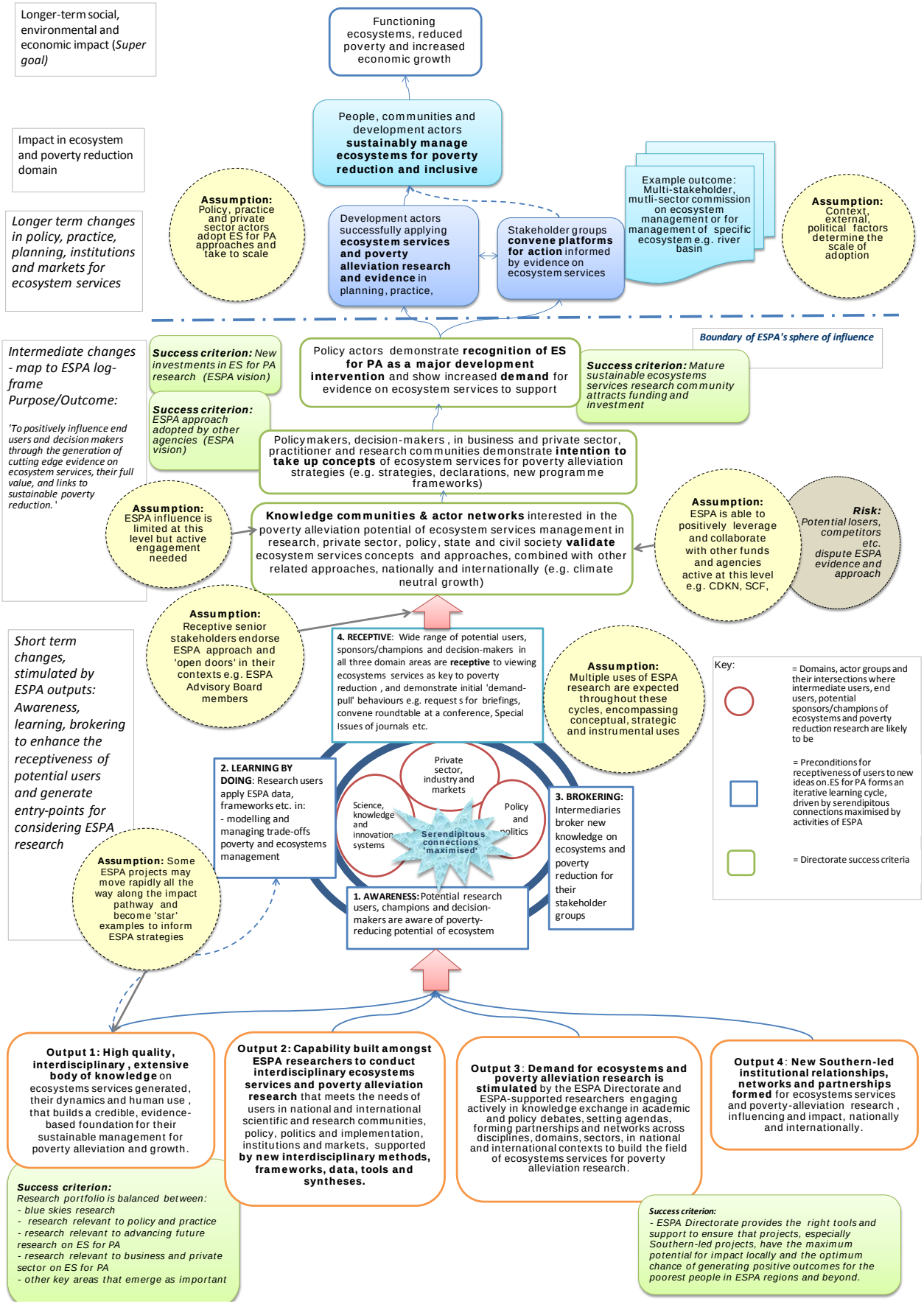
- long-term change sought
- what needs to change and why
- the context for change and others active in it, dynamics in the context
- how and why ESPA research will help to stimulate outcomes that contribute to long-term change

It is important to remember that the ToC is a conceptual model, not a literal representation of a linear process. Its main purpose is to provide an analytical framework for understanding the main types of change that the programme must achieve for long-term success, and to highlight the interventions needed to achieve them.

The model in Figure 3 presents a hierarchy of change; starting at the lower level the Programme Outputs are described. These influence short term changes that are required for ESPA's target users to be aware of, understand and become receptive to ESPA research evidence.

These lead on to intermediate term changes. At this level, the TOC acknowledges that the ESPA Programme is not the only initiative working on ecosystems services and poverty alleviation. ESPA is located within a wider set of international and national development actions on ecosystems, environmental issues, climate change, economic growth, livelihoods, poverty reduction, governance and many other issues and this wider 'community' validates the knowledge generated by ESPA, leading to uptake by research users.

Figure 3: ESPA Theory of Change



As ecosystem services and poverty alleviation is an emerging area, to be successful, ESPA must actively engage in building and developing this new research, policy and practice field. To put it another way, ESPA must create a 'market' for its research amongst the user communities it has identified as key to delivering the long-term development impacts. To achieve this, ESPA needs to deliver longer term outcomes that:

- Stimulate demand for ecosystems services and poverty alleviation research through active networking, forming relationships, alliances and partnerships
- Engage in exchange, dialogue and proactive influencing
- Create platforms for interactions and learning on ecosystems services and poverty alleviation amongst stakeholders in a range of contexts
- Develop new evidence products, technologies, management methods and application frameworks for ecosystems services and poverty alleviation, tailored to meet research users' needs.

Beyond this, it is assumed policy processes beyond the sphere of influence of ESPA will, informed by this knowledge base, contribute to the longer term impacts:

- People, communities and development actors sustainably manage ecosystems for poverty reduction and inclusive growth
- Functioning ecosystems, reduced poverty and increased economic growth.

3.2 ESPA's long-term impact

(See the top section of the ESPA ToC diagram in Figure 1.)

The theory of change analysis has identified that ESPA's long-term aim is to contribute to **functioning ecosystems, reduced poverty and increased economic growth.**

In the substantive area of ecosystem services and poverty reduction, ESPA aims to contribute to **people, communities and development actors in policy, practice and the private sector sustainably managing ecosystems for poverty reduction and inclusive growth.**

3.3 What needs to change: Building the field of ecosystems services and poverty alleviation research and action

The ESPA ToC breaks down ESPA research impact into linked stages: short-term, intermediate and long-term outcomes. The idea is to identify the short-term outcomes that are within ESPA's sphere of influence and understand why these are important.

If short-term changes are achieved, then the intermediate level changes are likely to follow. The theory of change analysis then suggests plausible links to the long-term changes to which ESPA seeks to contribute.

3.3.1 ESPA stakeholders, target audiences and research users

This long-term impact depends on a wide range of stakeholders being able to successfully implement evidence-informed approaches to ecosystem services and poverty reduction at scale in policy, planning and practice.

The ToC shows that, to achieve its outcomes, ESPA's research needs to reach users and stakeholders in:

- Science, knowledge and innovation systems
- Industry, business and private sector
- Politics, policymaking and implementation

In the ToC diagram, the shorthand development actors has been used. This term is used to mean all individuals contributing to social, political and economic development, including business and the private sector, not only those whose core purpose is development programming.

In the diagram, target audiences and potential users have been broken out into a number of categories to indicate the diversity of roles that are needed to carry through ESPA research to applications in research, policy and business. These roles include:

- Champions
- Sponsors

- Decision-makers/gatekeepers
- Policymakers
- Practitioners
- Advocates

Differentiating between roles is helpful to identifying a nuanced range of uses of ESPA research, ranging from indirect uses by 'champions' to introduce new concepts, through to strategic uses in case-making by 'gate-keepers', as well direct applications in policy and practice (instrumental – see Nutley 2010).

Further contextualisation of target users will be required for specific types of analysis.

ESPA's research users are expected to span developing countries, UK and other countries involved in development cooperation. Users will apply evidence on ecosystems services and poverty in policies, market development, and implementation of new programmes in order to contribute directly or indirectly to ESPA's development goals.

3.3.2 Building the field

In order to achieve the long-term outcomes of sustainably managed ecosystems, poverty reduction and economic growth, the ToC shows that ESPA needs to do much more than produce a body of high-quality research (although this of course is vital).

As ecosystem services and poverty alleviation is an emerging area, to be successful, ESPA must actively engage in building and developing this new research, policy and practice field. To put it another way, ESPA must create a 'market' for its research amongst the user communities it has identified as key to delivering the long-term development impacts.

To achieve this, ESPA needs to:

- Stimulate demand for ecosystems services and poverty alleviation research through active networking, forming relationships, alliances and partnerships
- Engage in exchange, dialogue and proactive influencing
- Create platforms for interactions and learning on ecosystems services and poverty alleviation amongst stakeholders in a range of contexts

- Develop new evidence products, technologies, management methods and application frameworks for ecosystems services and poverty alleviation, tailored to meet research users' needs.

These key additional dimensions are reflected in the programme outputs that are the building blocks of ESPA's change process, shown in orange at the bottom of the ToC diagram (see also point 7.)

3.3.3 Context for change and others active in it: Intermediate level changes

(Intermediate level changes, the green boxes in the Figure 3 ToC diagram)

ESPA is not the only initiative working on ecosystems services and poverty alleviation. ESPA is located within a wider set of international and national development actions on ecosystems, environmental issues, climate change, economic growth, livelihoods, poverty reduction, governance and many other issues.

At this intermediate level in ESPA's theory of change, it is anticipated that other funds, agencies and research programmes will interact with ESPA activities and networks. These include for example:

- Climate Change and Development Knowledge Network (CDKN)
- Consultative Group on International Agricultural Research (CGIAR)
- international NGO agencies such as Oxfam and Save the Children
- international initiatives such as the United Nations Environment Programme Rio process.

The ToC highlights that ESPA evidence and approach needs to be combined with and leverage these initiatives to contribute to the higher-level impact.

Intermediate change 1: Knowledge communities and networks validate ecosystems services concepts and approaches

To achieve this positive leverage, the ESPA ToC suggests that the knowledge communities active in these broader issue areas in research, private sector, policy, state and civil society need to validate ecosystems services concepts and approach. This validation is seen as occurring through both formal and informal processes within networks and contexts interested in the poverty alleviation of ecosystems services.

Intermediate change 2: Stakeholders intend to take up ecosystems for poverty alleviation strategies in their work

If validation by knowledge communities takes place, then we would expect to see indications that policymakers and decision-makers in government, private sector, practitioner and research communities intend to take up ecosystems for poverty alleviation strategies in their work. Indications of this change might include declarations, announcements of new programme areas, new regulatory frameworks or new programme areas.

Intermediate change 3: Recognition of ecosystem services for poverty reduction as development intervention

If the first two intermediate changes have taken place, we would expect these to lead to the recognition of ecosystems services for poverty alleviation as a major development intervention by development policy actors, both nationally and internationally.

As a result, there would be an increased demand for evidence on ecosystem services management to support the large-scale implementation of policies, market development and community initiatives for the sustainable management of ecosystem services for poverty alleviation.

3.3.4 Success criteria

Some outline success criteria to demonstrate that these intermediate changes are occurring include:

- The ESPA approach is adopted by other agencies
- A selection of ESPA target countries pilot ESPA-related approaches
- There are new investments in ecosystems services for poverty alleviation research
- A maturing ecosystem services research community attracts funding.

Assumption: Timeframe

The intermediate level changes described below relate to the Purpose/Outcome in the ESPA log-frame. Significant changes at this level would be expected within the lifetime of the project.

Assumption: ESPA Boundary

The ToC analysis identifies a boundary between the intermediate level changes and the longer term impact ESPA seeks to helps bring about. Having contributed to the establishment of ecosystems management and poverty alleviation as a major development intervention, and a demand for evidence, ESPA 'hands over' to a wide range of development actors to then apply and implement interventions at scale to bring about long-term change.

Assumption: ESPA's influence at the intermediate level

The importance of this stage of validation by actor networks is supported by research on policy and practice change[1]. However, this stage is not straightforward, as this is an inherently political process, with multiple initiatives competing over profile, relevance and funding. There is a potential risk here that competing initiatives which take a different starting point from ESPA dispute ESPA evidence and its approach.

The ToC recognises that ESPA's direct influence to achieve this change is limited, given these dynamics. Nevertheless, to maintain progress towards the higher-level goal, the ToC requires ESPA to engage actively at this level to influence debates, form alliances and shape processes to create a favourable view of ESPA as a relevant and feasible approach.

3.3.5 ESPA interventions to support intermediate level changes

- ESPA projects report on the medium-term results of their stakeholder engagement and influencing in their contexts, with a focus on these types of change.

[1] Sumner, A. et al, 'What shapes research impact on policy? Understanding research uptake in sexual and reproductive health policy processes in resource poor contexts', *Health Research Policy and Systems* 2011, **9**(Suppl 1):S3 (16 June 2011)
Nutley, S. et al (2010), Using Evidence. How research can inform public services, The Policy Press
Court, J. and J. Young (2003) *Bridging Research and Policy: Insights from 50 Case Studies*, Working Paper 213, London: Overseas Development Institute
IDS (2006) *Understanding policy processes: A review of IDS research on the environment*, Brighton: Institute of Development Studies

- ESPA Directorate engages and collaborates with related international initiatives, creating a strong international presence for ESPA amongst science, policy and business communities active in environment and development.

3.4 How and why ESPA research will contribute to change: Receptiveness of context

(*Short-term changes: the blue boxes and circle in the bottom half of the ToC diagram, Fig. 3)*

As a precondition to the intermediate-level changes, the ESPA ToC identifies a key stage of influencing and active engagement of stakeholders in the ESPA target domains of science and innovation systems, industry and business, and development policy and practice. The overall outcome sought at this level is that potential users of ESPA research in these key contexts become receptive to viewing ecosystems services as key to poverty alleviation.

Receptive implies a change, so we would expect to see active responses at this level that create entry points for ESPA research. These might include requests for briefings or demonstrations; special sessions convened at conferences, both academic and business; special issues of journals; seminar series and others that signify early 'demand-pull' behaviours.

This level of change is considered to be well within ESPA's sphere of influence.

3.4.1 Short-term changes 1-3

The ToC describes here an iterative learning cycle of:

1. Awareness of the poverty reducing potential of ecosystems services – especially amongst champions and potential early adopters
2. Learning by doing, where research users apply ESPA frameworks and data to develop further models, planning tools and other applications
3. Knowledge brokering, where relevant intermediaries (for example, SciDev.Net) to help translate and contextualise ESPA outputs for their stakeholders who fit ESPA's target audience

In this cycle, ESPA research will be introducing new concepts, showing new possibilities and approaches. The objective is make ecosystems services issues relevant to development programming, private sector and science and innovation communities.

The ToC analysis emphasises that all of these changes are necessary in order to achieve the key milestone of receptiveness amongst the wide diversity of ESPA's target groups in science and innovation, the private sector and development cooperation.

Assumption: ESPA's role and serendipity

Serendipity will play a large role in which connections are sparked between different stakeholder groups and which opportunities arise. However, by highlighting the importance of this stage in ESPA's ToC and identifying the key processes that need to take place, ESPA is much better-placed to maximise the possibilities of chance connections, be alert to the appearance of opportunities, and be *strategically* opportunistic. This dynamic is illustrated in the ToC diagram as Serendipitous connections maximised.

Assumption: Research uses in the short-term

The ToC assumes that ESPA research will be used in many different ways throughout this learning cycle. Returning to a point made earlier, we would expect there to be a wide range of uses at this level:

- conceptual uses – to introduce new ideas, new framings of issues and perspectives
- strategic uses – in case-making, proposals for new work, advocacy (both within organisations and in the wider context)
- instrumental – in models, planning tools, organisational policies

Assumption: 'Star' projects

The theory of change acknowledges that there may be 'star' ESPA projects which move rapidly along the change pathway to have impact on policy locally. It is assumed that these 'star' projects will be documented and become examples to learn from. To capitalise on 'star' projects, ESPA's Directorate will need to have a strategy to demonstrate scaleability so that this learning becomes integrated into the overall ESPA approach.

3.4.2 ESPA interventions to stimulate receptiveness

ESPA will need a strategy for how it intervenes in the receptiveness cycle. The ToC analysis suggests that all projects ought to have 'awareness' as a minimum target. However, the emphasis on both 'knowledge brokering' and 'learning by doing' as key aspects of the cycle are important reminders that this strategy needs to extend further than a media or profile-raising strategy. It needs to engage in areas such as modelling, applications and practice development, influencing and networking.

3.5 ESPA Outputs

(Outputs, orange boxes at the bottom of the ToC diagram, Fig. 3)

This narrative has tracked the ESPA Theory of Change back from the long-term impact. However, the entire change process is driven by the ESPA outputs, the direct products of the programme's activities. Without these building blocks, the movement along the change pathway would not be possible.

Because the ToC analysis has specified the types of changes that are important, it is possible at this level to understand in depth the nature of the outputs ESPA needs to produce. As mentioned earlier, it is clear that to achieve its goals, ESPA needs to do more than produce a high-quality body of evidence.

This broader perspective of the programme and its desired impact is reflected in the formulation of the outputs, which form the core of ESPA's log-frame and results framework.

Output 1: High quality, interdisciplinary , extensive body of knowledge on ecosystems services generated, their dynamics and human use , that builds a credible, evidence-based foundation for their sustainable management for poverty alleviation and growth.

Output 2: Capability built amongst ESPA researchers to conduct interdisciplinary ecosystems services and poverty alleviation research that meets the needs of users in national and international scientific and research communities, policy, politics and implementation, institutions and markets, supported by new interdisciplinary methods, frameworks, data, tools and syntheses.

Output 3: Demand for ecosystems and poverty alleviation research is stimulated by the ESPA Directorate and ESPA-supported researchers engaging actively in knowledge exchange in academic and policy debates, setting agendas, forming partnerships and networks across disciplines, domains, sectors, in national and international contexts to build the field of ecosystems services for poverty alleviation research.

Output 4: New Southern-led institutional relationships, networks and partnerships formed for ecosystems services and poverty-alleviation research , influencing and impact, nationally and internationally.

Assumption: Ongoing refining of ESPA outputs and theory of change

It is assumed that the precise formulation of ESPA's outputs and ToC will remain a focus for dialogue and reflection for stakeholders as the programme matures. For example, how the outputs relate to one another is a key learning question: is capacity (Output 2) a precursor for the other outputs? The ToC provides a framework to guide these discussions and help to optimise ESPA's strategies.

4 Use of the Theory of Change

The weakness of the logical framework, generally, is that its logic has to span the fine-grained detail of activities, up to MDG-level impacts, in only four logic steps. Inevitably, there will be large logic leaps between some levels of the logical framework. A TOC is a good way of breaking down intervention logic into smaller steps, and making explicit the assumptions related to each step.

In revising the ESPA logical framework based on the TOC, the weaknesses in its output to outcome logic steps were exposed. To aid in the process of reviewing the log frame and identifying possible indicators, the TOC was translated into a results chain in which output and outcome success drivers and assumptions were mapped along the output to purpose chain. This aided in creating a narrative around which relevant output indicators were devised. The narrative detail is provided in the Section 6, whilst the logical framework is presented in the next section.

The TOC was also used as the building block for developing the Directorate KPIs by identifying the role of the Directorate in facilitating or delivering the process of change from programme outputs to programme outcome.

In order to achieve the long-term outcomes of sustainably managed ecosystems, poverty reduction and economic growth, the ToC shows that ESPA needs to do much more than produce a body of high-quality research (although this of course is vital).