



# Pathways to Impact

Wednesday 5th Dec. 2018

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# Objectives

Ulster's *Safewater* project.

Pathways to impact and the ...

1. Transdisciplinary approach (TDR)
2. Logical framework approach (LOG)
3. Theory of change approach (TOC)

Global Challenges Research Fund:

**The Call:** Growing Research Capacity to Meet the Challenges Faced by Developing Countries.

# See Appendices for...

- Research Councils UK definition of impact
- Academic impact
- Economic and societal impact
- Pathways to impact
- Pathways to impact statements
- Researchers need to...
- Top tips for articulating impact



SAFE  
WATER

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**Access to clean drinking water is a basic human right. Our aim is to make sure everyone can.**

**SAFEWATER is a transdisciplinary research centre working to deliver clean drinking water in underdeveloped areas around the world**

# Our research...



## The Problem

1.8 billion people do not have access to clean drinking water, exposing them to unnecessary illnesses and diseases.



## Solutions

We want to create solutions using technologies that are effective, low cost, and sustainable.



## Our Focus

We are initially working with rural communities in Colombia and Mexico, aiming to expand our collaborations to other countries and to share our results globally.



# The partners...



# The funders...

Name change

Research Councils UK (RCUK)

UK Research and Innovation (UKRI)

- Global Challenges Research Fund
- Industrial Strategy Challenge Fund
- Future Leaders Fellowships
- Strength in Places Fund

# Research Councils

- [AHRC](#)
- [BBSRC](#)
- [EPSRC](#)
- [ESRC](#)
- [Innovate UK](#)
- [NERC](#)
- [MRC](#)
- [Research England](#)
- [STFC](#)



# Global Challenges Research Fund



Our vision is to create new knowledge and drive innovation that helps to ensure that everyone across the globe has access to:

- secure and resilient food systems supported by sustainable marine resources and agriculture
- sustainable health and well being
- inclusive and equitable quality education
- clean air, water and sanitation
- affordable, reliable, sustainable energy.



# SUSTAINABLE DEVELOPMENT GOALS



# The SDGs...

**SAFEWATER** is focused on the UN Sustainable Development Goal 6: 'Ensure access to water and sanitation for all' and cross cuts against several other SDGs, for example:



It is the poor that suffer from lack of clean drinking water.

**(SDG 1 'No Poverty')**



The lack of clean water has clear implications for health.

**(SDG 3 Good 'Health and Wellbeing')**



It is mainly females who are responsible for water collection.

**(SDG 5 'Gender Equality')**

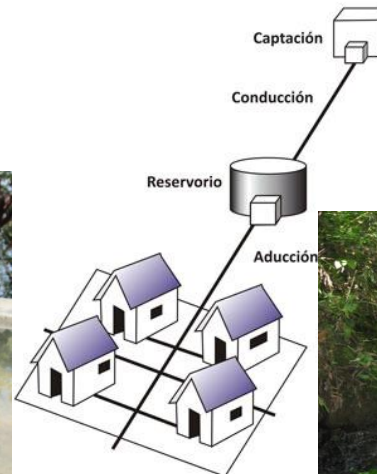


UNIVERSIDAD DE MEDELLIN

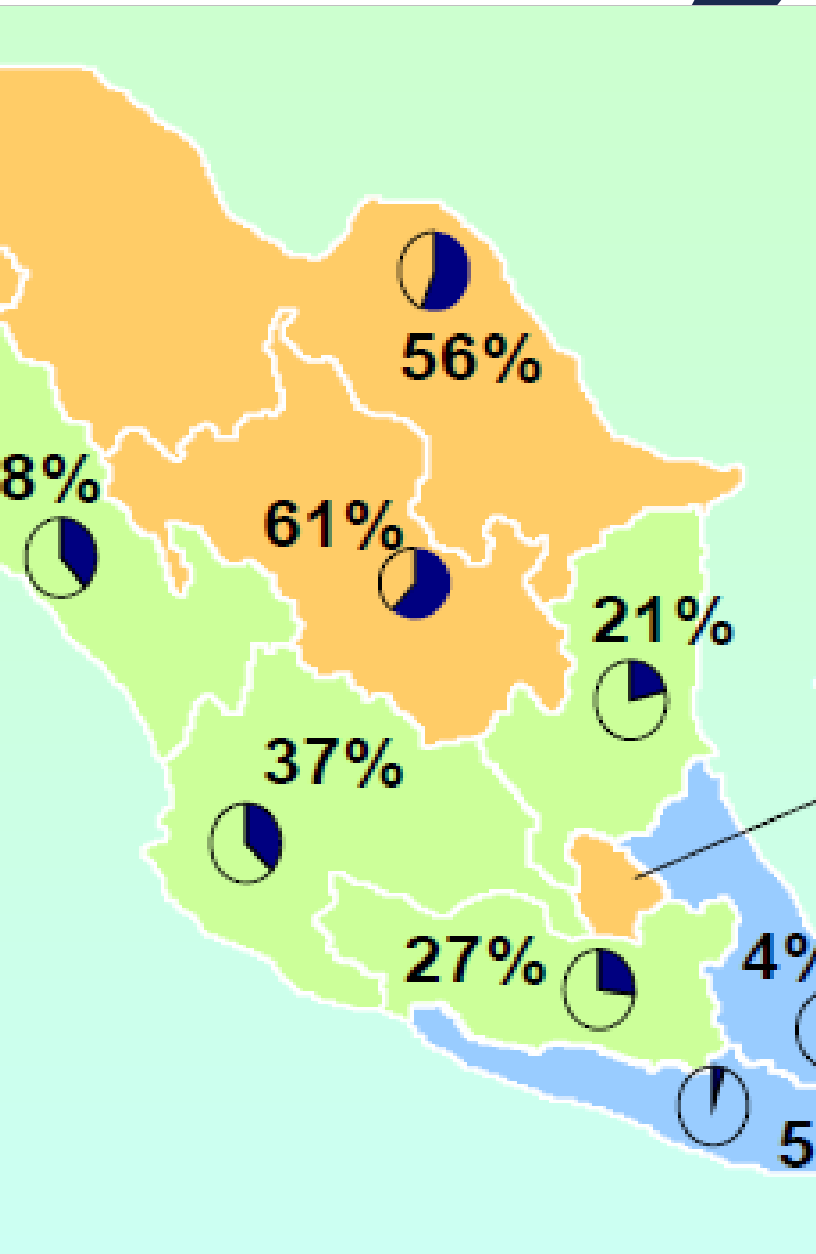
# Rural communities in Colombia

## Main water problems

- Low or lack of treatment of water
- Access to safe drinking water < 70%
- Contamination in water, i.e. pathogens
- Low income areas
- Inadequate technologies

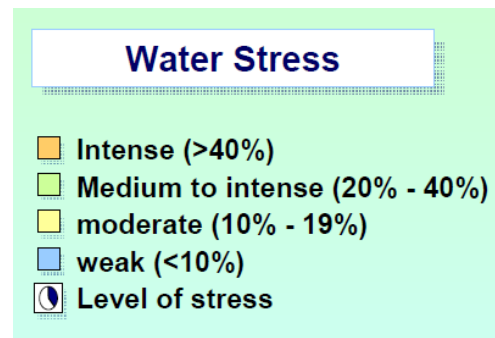


## Water stress in Mexico



- Mexico is water stressed and some basins are more severely affected than others;
- over the past six decades, population growth has limited considerably the amount of water available for each person;
- in addition, water is unevenly distributed, with more than three-quarters of the population living in regions with not much water.

OECD, (2013)







## Technology and water

- lack of investment by municipal governments;
- local government finance materials for emergency repairs, as “payment for political favours” (Dominguez et al. 2016, p. 130)
- corrupt practices:
  - technologies in many areas abandoned and in disrepair as they have been imposed by politicians and contractors
  - provision of economic resources by local governments for emergency repairs “in payment of political favours”

(Red Nacional de Acueductos Comunitarios, 2017)

Domínguez et al., (2016:130)



# Disciplines

- Nanotechnology & Advanced Materials
- Engineering
- Biomedical Sciences
- Environmental Engineering
- Computing & Mathematics
- Psychology
- Law
- Management

## Transdisciplinary Research ...

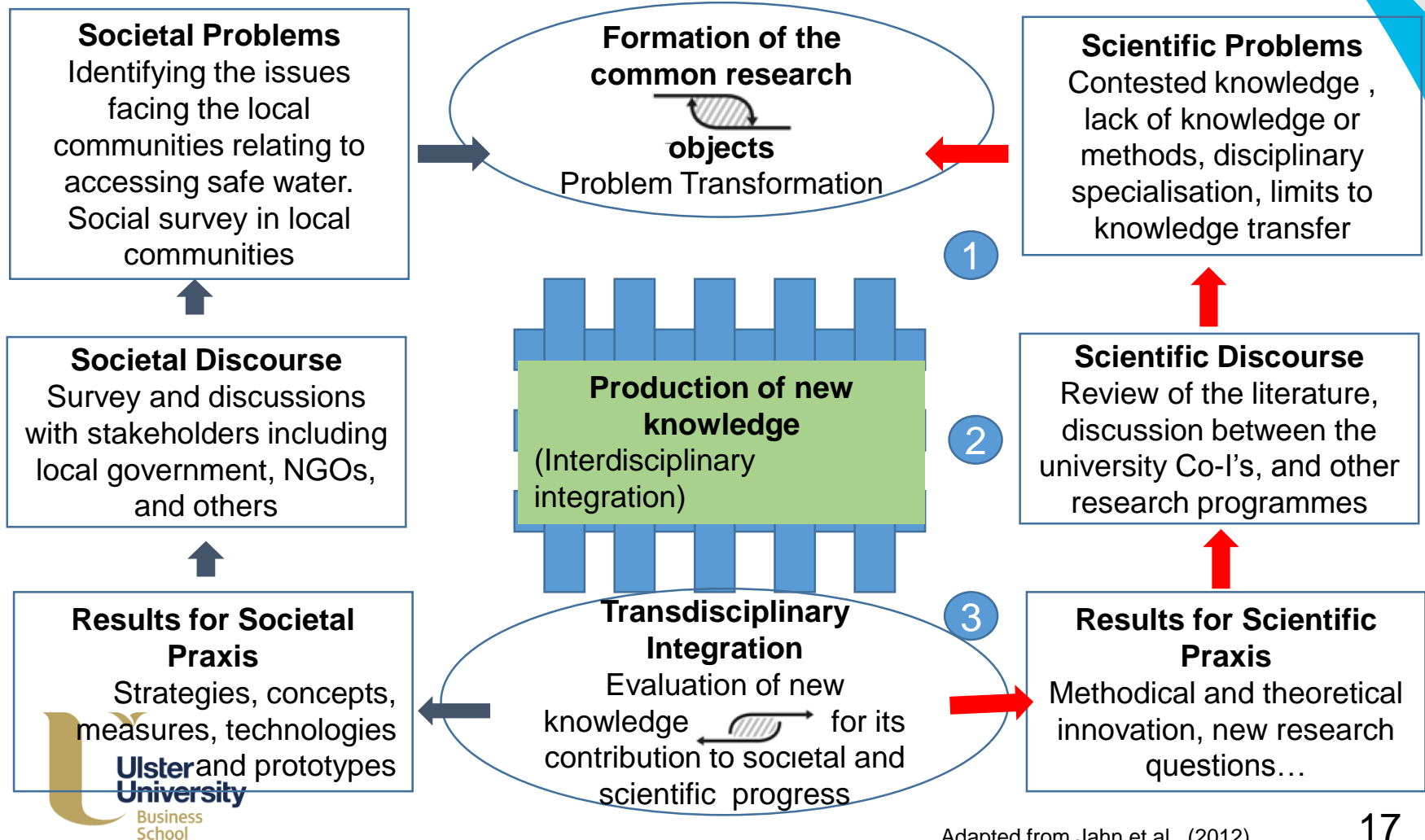
“.... a comprehensive, multi-perspective, problem- and solution-oriented approach that transgresses the boundaries both between scientific disciplines and between science and practice.”

(Hoffmann, Pohl & Hering 2017, p. 679)

# SafeWater: transdisciplinary centre

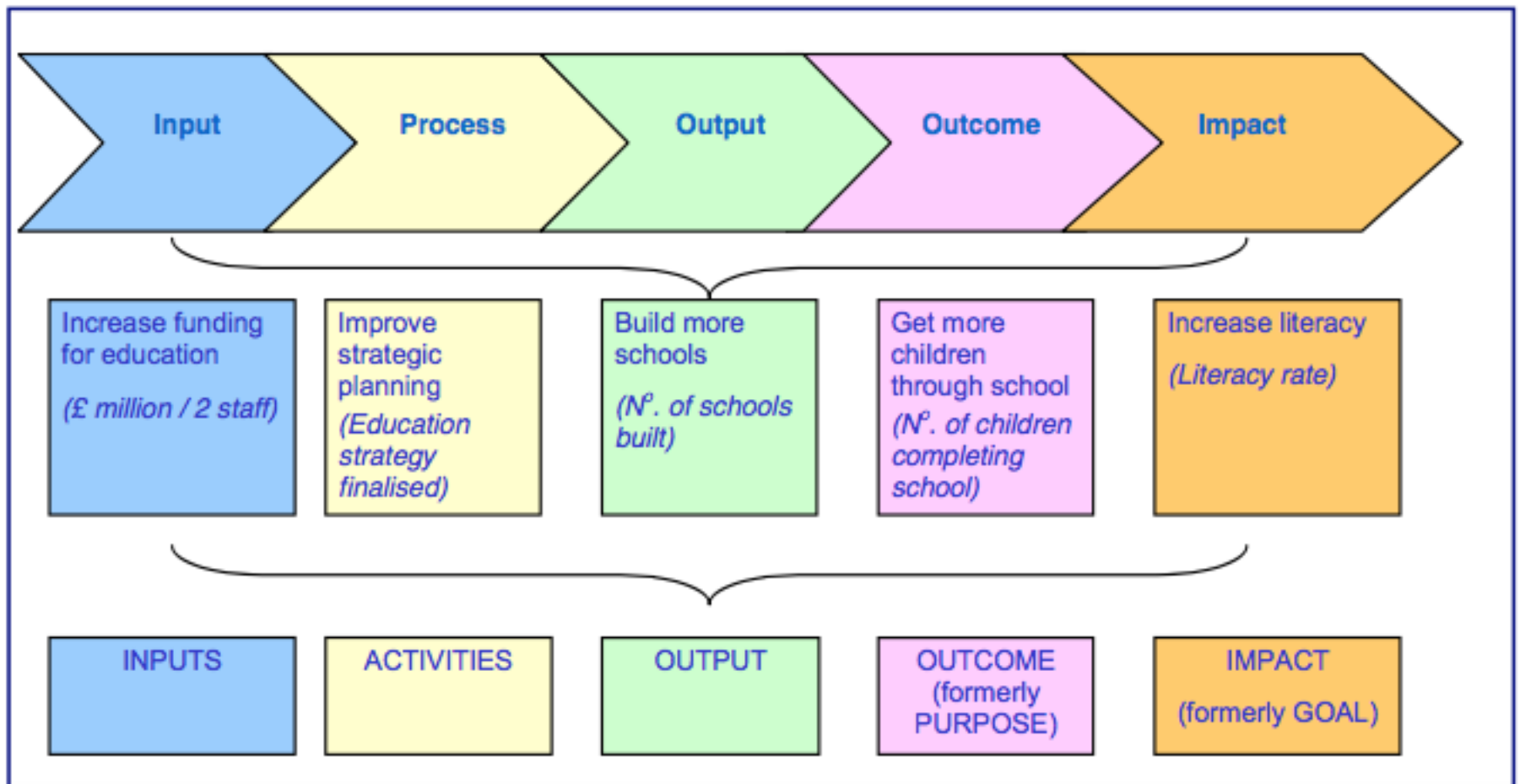


Focused on low cost technologies to deliver safe drinking water in developing regions.



# The Logical Framework Approach (LFA)

Department for International Development 2011:11



# The Logical Framework Approach

## ANALYSIS PHASE

- ↓ **Stakeholder analysis** - identifying & characterising potential major stakeholders; assessing their capacity
- ↓ **Problem analysis** - identifying key problems, constraints & opportunities; determining cause & effect relationships
- ↓ **Objective analysis** - developing solutions from the identified problems; identifying means to end relationships
- ↓ **Strategy analysis** - identifying different strategies to achieve solutions; selecting most appropriate strategy.

## PLANNING PHASE

- ↓ **Developing Logical Framework matrix** - defining project structure, testing its internal logic & risks, formulating measurable indicators of success
- ↓ **Activity scheduling** - determining the sequence and dependency of activities; estimating their duration, and assigning responsibility
- ↓ **Resource scheduling** - from the activity schedule, developing input schedules and a budget

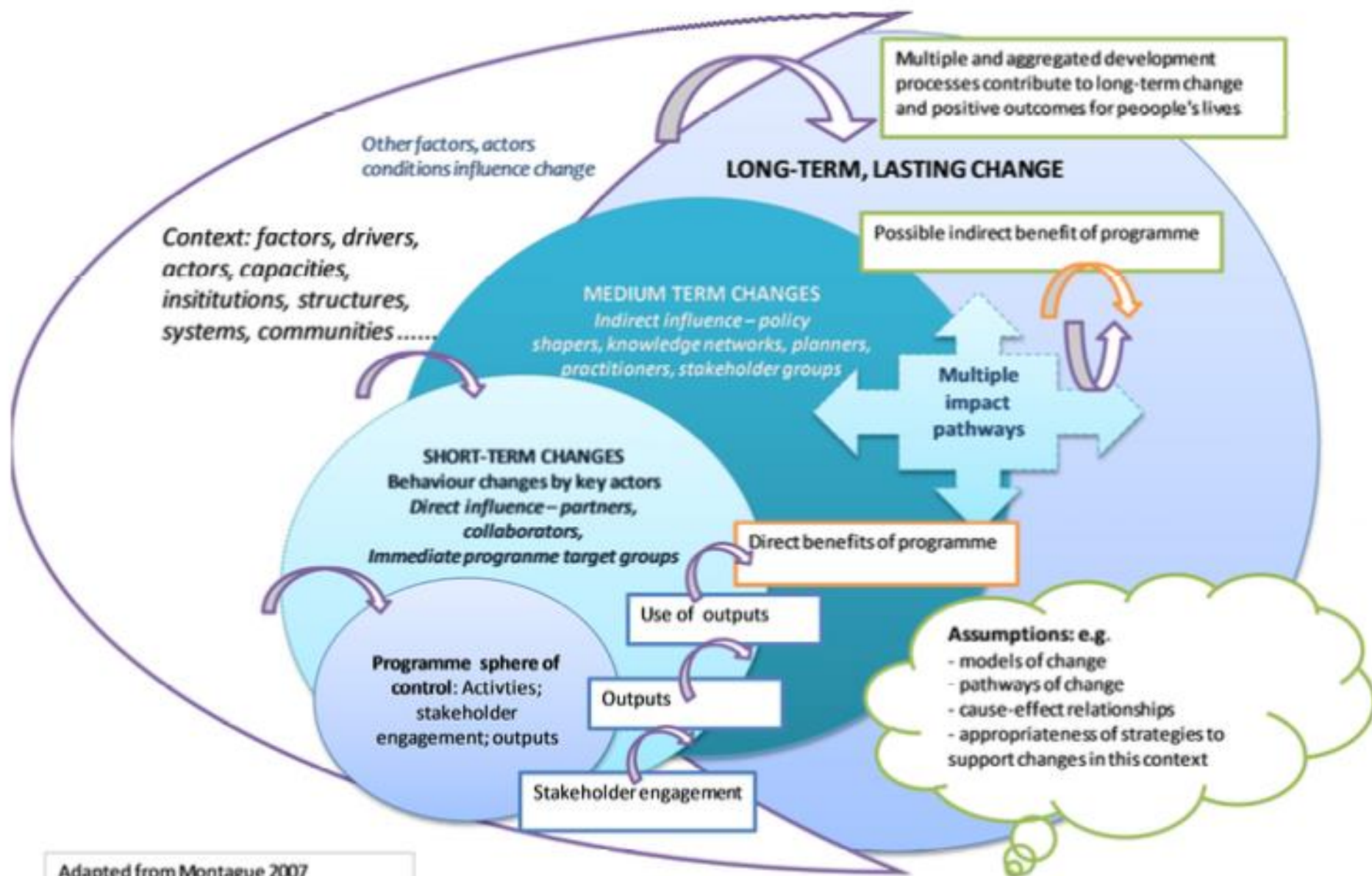


# The Logframe Matrix

Project Description	Indicators	Source of Verification	Assumptions
<b>Overall objective:</b> The broad development impact to which the project contributes – at a national or sectoral level (provides the link to the policy and/or sector programme context)	Measures the extent to which a contribution to the overall objective has been made. Used during evaluation. However, it is often not appropriate for the project itself to try and collect this information.	Sources of information and methods used to collect and report it (including who and when/how frequently).	
<b>Purpose:</b> The development outcome at the end of the project – more specifically the expected benefits to the target group(s)	Helps answer the question 'How will we know if the purpose has been achieved'? Should include appropriate details of quantity, quality and time.	Sources of information and methods used to collect and report it (including who and when/how frequently)	Assumptions (factors outside project management's control) that may impact on the purpose-objective linkage
<b>Results:</b> The direct/tangible results (good and services) that the project delivers, and which are largely under project management's control	Helps answer the question 'How will we know if the results have been delivered'? Should include appropriate details of quantity, quality and time.	Sources of information and methods used to collect and report it (including who and when/how frequently)	Assumptions (factors outside project management's control) that may impact on the result-purpose linkage
<b>Activities:</b> The tasks (work programme) that need to be carried out to deliver the planned results  <i>(optional within the matrix itself)</i>	<i>(sometimes a summary of resources/means is provided in this box)</i>	<i>(sometimes a summary of costs/budget is provided in this box)</i>	Assumptions (factors outside project management's control) that may impact on the activity-result linkage



# Theory of change thinking



# Comparing and contrasting Logframe and Theory of Change

(After Van Es *et al* 2015)



Logframe	Theory of Change
Linear representation of change, simplifies reality	Critical thinking, room for complexity and deep questioning
Descriptive: A Logframe states only what is thought will happen / 'will' be achieved	Explanatory: A ToC articulates and explains the what, how, and why of the intended change process, and the contribution of the initiative
Three result levels (output, outcome, impact)	Pathways of Change, 'unlimited' and parallel result chains or webs, feedback mechanisms
Suggests causal relations between results levels without analysing and explaining these	Ample attention for the plausibility of assumed causal relations
Focuses on assumptions about external conditions	Articulates assumptions underlying the strategic thinking of the design of a policy, programmer or project

# Concluding thoughts ...

- Networks local, national, international
- Multidisciplinary and Transdisciplinarity
- Impact and stakeholders:
  - Beneficiaries
  - Intermediaries
  - Institutions
  - Funders

# APPENDICES



# Research Councils UK defines impact in the following ways:

- ***Academic impact***

The demonstrable contribution that excellent research makes to academic advances, across and within disciplines, including significant advances in understanding, methods, theory and application.

# Economic and societal impacts



The demonstrable contribution that excellent research makes to society and the economy. Economic and societal impacts embrace all the extremely diverse ways in which research-related knowledge and skills benefit individuals, organisations and nations.



# Pathways to impact

- UK Research and Innovation collectively invest £6 billion in research and innovation each year to meet tomorrow's challenges today, bringing about a positive impact in our society, economy and in our lives.
- Impact occurs in many ways – through knowledge exchange, new products and processes, new companies and job creation, skills development, increasing the effectiveness of public services and policy, enhancing quality of life and health, international development and so on.



# A clearly thought through and acceptable Pathways to Impact statement

A clearly thought through and acceptable Pathways to Impact is an essential component of a research proposal and a condition of funding. Grants will not be allowed to start until a clearly thought through and acceptable Pathways to Impact statement is received.

A clearly thought through and acceptable Pathways to Impact statement should:

- be project-specific and not generalised;
- be flexible and focus on potential outcomes;

# Researchers need to:

- identify and actively engage relevant users of research and stakeholders at appropriate stages;
- articulate a clear understanding of the context and needs of users and consider ways for the proposed research to meet these needs or impact upon understandings of these needs;
- outline the planning and management of associated activities including timing, personnel, skills, budget, deliverables and feasibility;
- include evidence of any existing engagement with relevant end users.



# Top Tips for articulating potential impact:

- Draft the Impact Summary very early in your preparation, so that it informs the design of your research.
- Remember to consider and include project specific costs relating to proposed impact activities e.g. engagement workshops or marketing materials, publication costs, etc.
- Do not cut and paste the text provided within the Impact Summary into Pathways to Impact. The purpose of the Impact Summary is to provide a short description of the beneficiaries and potential impacts, which could be used in the public domain. Pathways to Impact should set out what the applicant(s) will do to realise the potential impacts.
- Public engagement is a popular form of [impact activity](#). For such activities to be as effective as possible, try to think of your research in the context of two-way engagement not just outreach.

# Impact Team

Supporting the research impact agenda at Ulster



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