

CAN ACTION RESEARCH ACT AS A VEHICLE IN CLIMATE CHANGE ADAPTATION?



CLIMATE CHANGE IN NORTHERN TERRITORIES

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KRISTÍN ÞÓRARINSDÓTTIR, MS, RN, LECTURER,

UNIVERSITY OF AKUREYRI

DR. RUNAR SIGÞÓRSSON, DOCENT, UNIVERSITY OF

AKUREYRI

RESEARCH ACTION RESEARCH



A systematic investigation for new knowledge and understanding grounded on established methods of data collection methods and data analysis; finding ways of testing its validity and sharing the knowledge for specific purposes.

In action research these purposes are always to do with learning, personal and social growth

(McNiff, Lomax and Jack Whitehead, 2003)

ACTION RESEARCH



Involves practical reflective problem-solving and expands scientific knowledge, as well as enhances the competencies of the respective actors, being performed collaboratively in an immediate situation using data feedback in a cyclical process aiming at an increased understanding of a given social situation, primarily applicable for the understanding of change processes in social systems and undertaken within a mutually acceptable ethical framework

(Carr and Kemmis, 1986; Hult and Lennung, 2007)

THE ACTION RESEARCH APPROACH



- **Constructivism – Knowledge is built but not aquired**
- **Critical theory –Integration of theory and practice, critique of society, self-awareness, emanicipation from oppression**
- **Freire - Dialogue – reflection - empowerment-consciousraising**
- **Community based research**
- **PAR – Participatory action research**



THE QUALITIES OF ACTION RESEARCH

Integrate research and change processes

Focuses on learning and reflection

Collaborative –researching **with people**

Aims at improvements

Is intentionally political

Is intentionally empowering

Is an ethical enterprise – ACUNS ethical principles

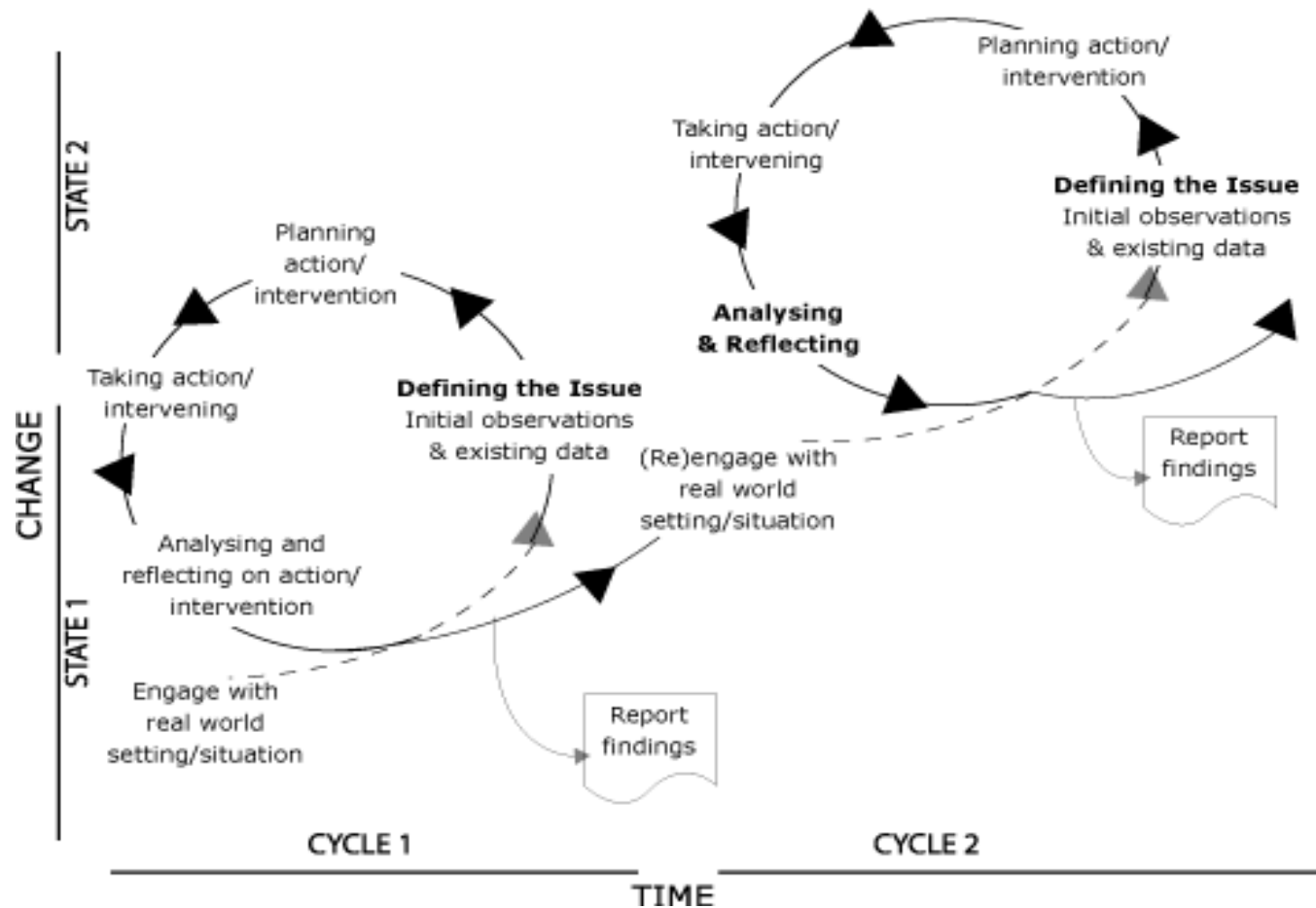
Data feedback in cyclical process

Multi-method data collection

(Creswell, 2012; Hult and Lennung, 2007; McNiff et al; 2003)



THE ACTION RESEARCH CYCLE



(Muir, 2007)



MULTI-METHOD DATA COLLECTION

Journaling

Participant observation

Surveys, questionnaires,

All kind of measurements

Recordings, photographs, videos

Interviews, focus-groups

Written documents

In fact everything can count as data

(Hult and Lennung, 2007; McNiff et al; 2003)



WHY IS ACTION RESEARCH SUITABLE IN ADAPTATION TO CLIMATE CHANGE



ACTION RESEARCH

Integrate research and change processes

Focuses on learning and reflection

Collaborative –research **with** people

Aims at social improvements

Intentional political

Intentional empowering

Data feedback in cyclical process

Multi-method data collection

Etical enterprice

ADAPTATION TO CLIMATE CHANGE

Adaption is a complex change process

Adaptation requires learning

Aims at community improvements

Require collaboration

Vulnerability to climate change

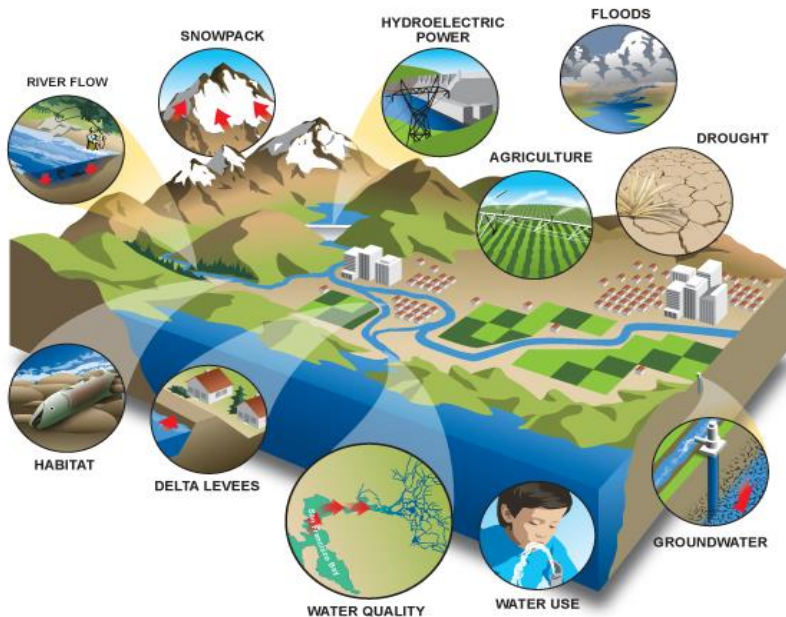
Importance of valuing local knowledge

Importance of context

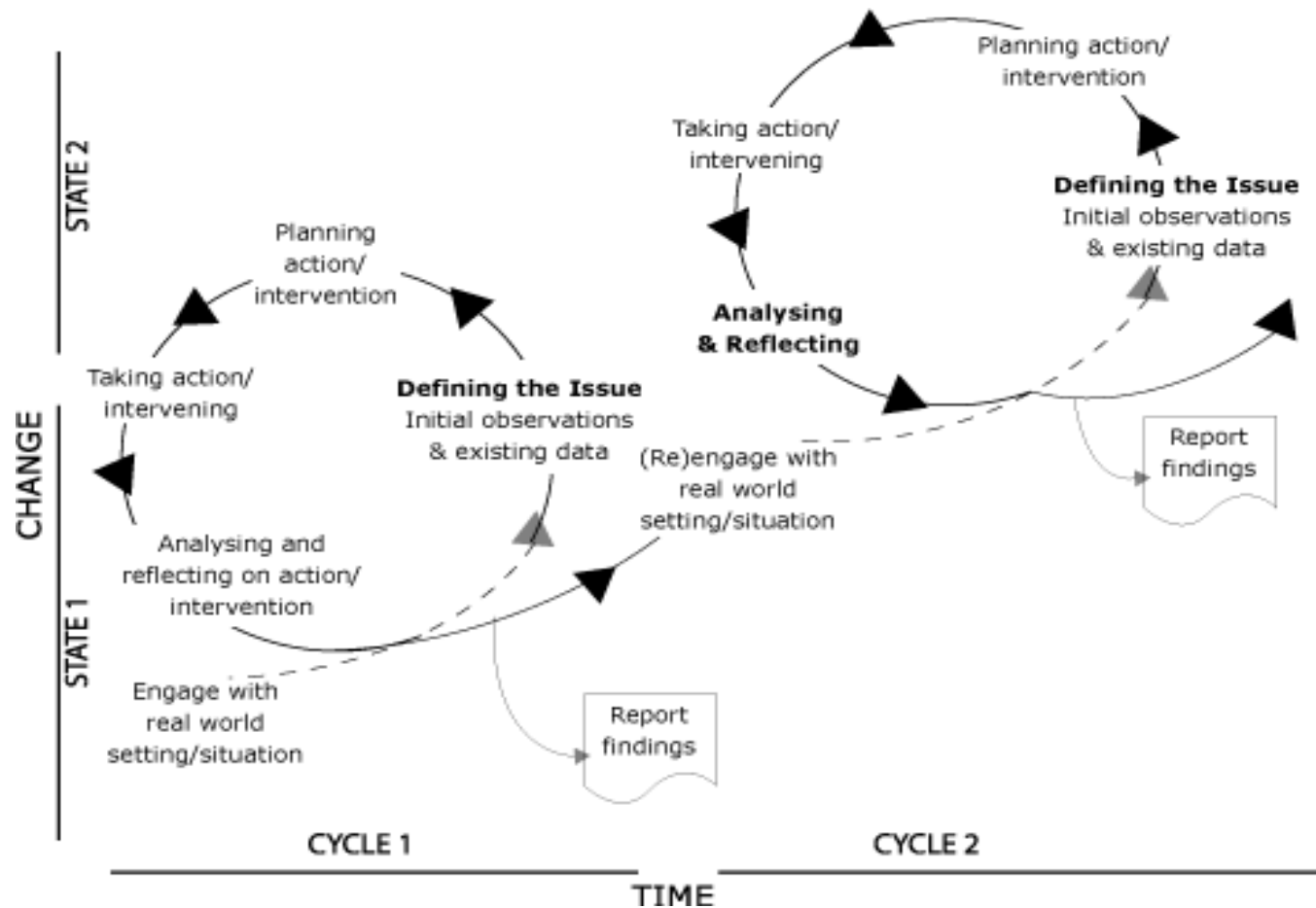
Importance of human right

Sustainability

CLIMATE CHANGE IS



THE ACTION RESEARCH CYCLE



(Muir, 2007)

PAR APPLIED IN SUPPORTING CLIMATE CHANGE ADAPTION BY FARMERS IN AFRICA

(Mapfumbo et al. 2013)



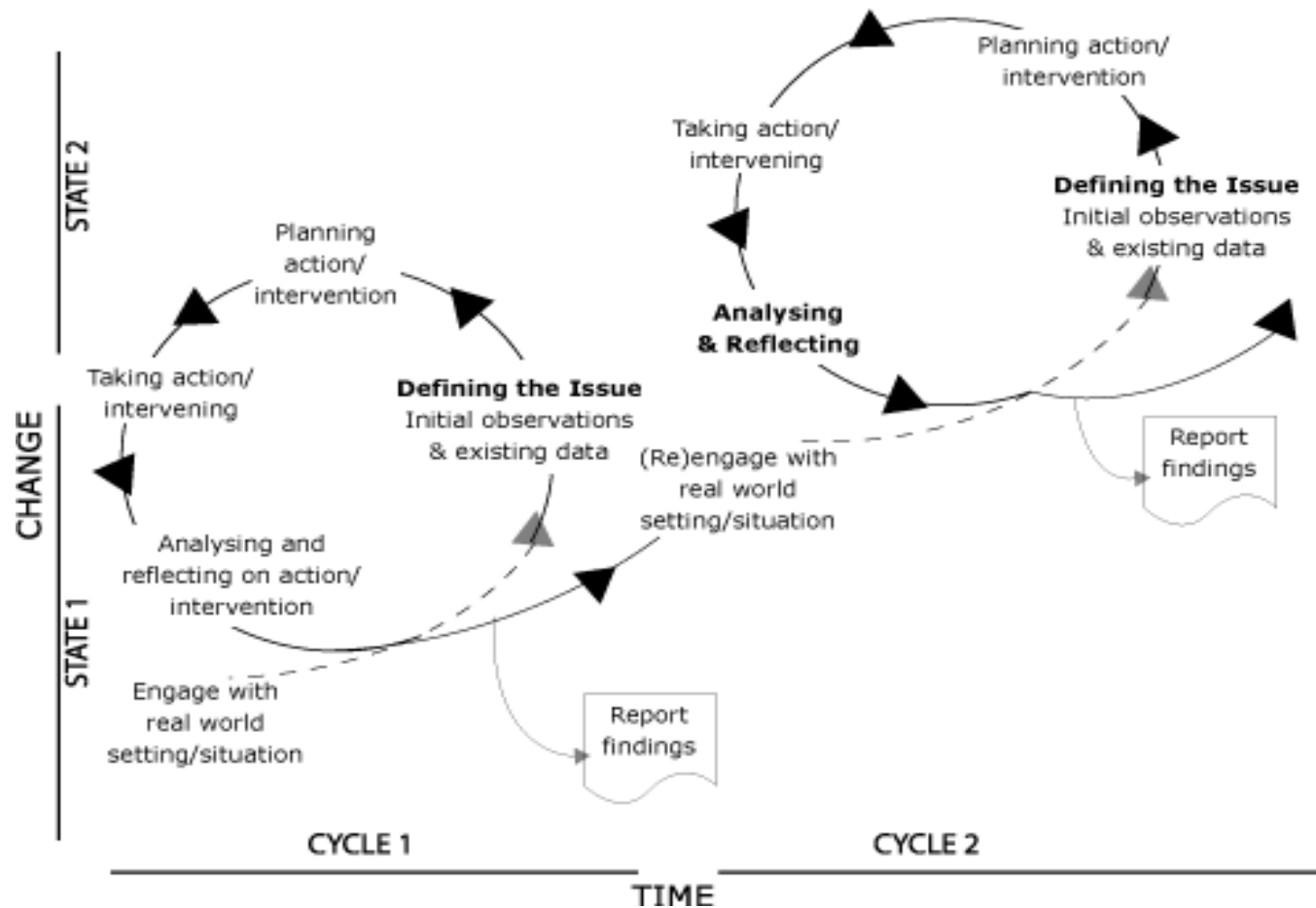
Engagement with the real world situation	Food security was threatened due to climate change. Crop yield diminished 1960-2008: 30 % decline in rainy days Increase in drought Tenure between farmers Diminished soil fertility
Participants	PAR research team, farmers, farmers associations, local leaders, metrologists, agrocluturist, fertilizer companies
Defining the issue Initial observation and existing data	Multi-focal data collection Declining soil fertility was core of the problem

PAR APPLIED IN SUPPORTING CLIMATE CHANGE ADAPTION BY SMALLHOLDER FARMERS IN AFRICA



Action planning	Learning centres, ISFM experimentation and distribution of knowledge and resources to the participating farmers community
Taking action	Actions implemented
Analysing and reflecting on action	<ol style="list-style-type: none"> 1. Experimentations showed increase in soil fertility and croup yield 2. Increasing of crop yields up to 25-125%
Re-engaging with the situation	<p>High interest in ISFM by farmers</p> <p>Increased soil fertility still developed challenges</p> <p>The study regarded as an entry point</p>

THE ACTION RESEARCH CYCLE



(Muir, 2007)

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