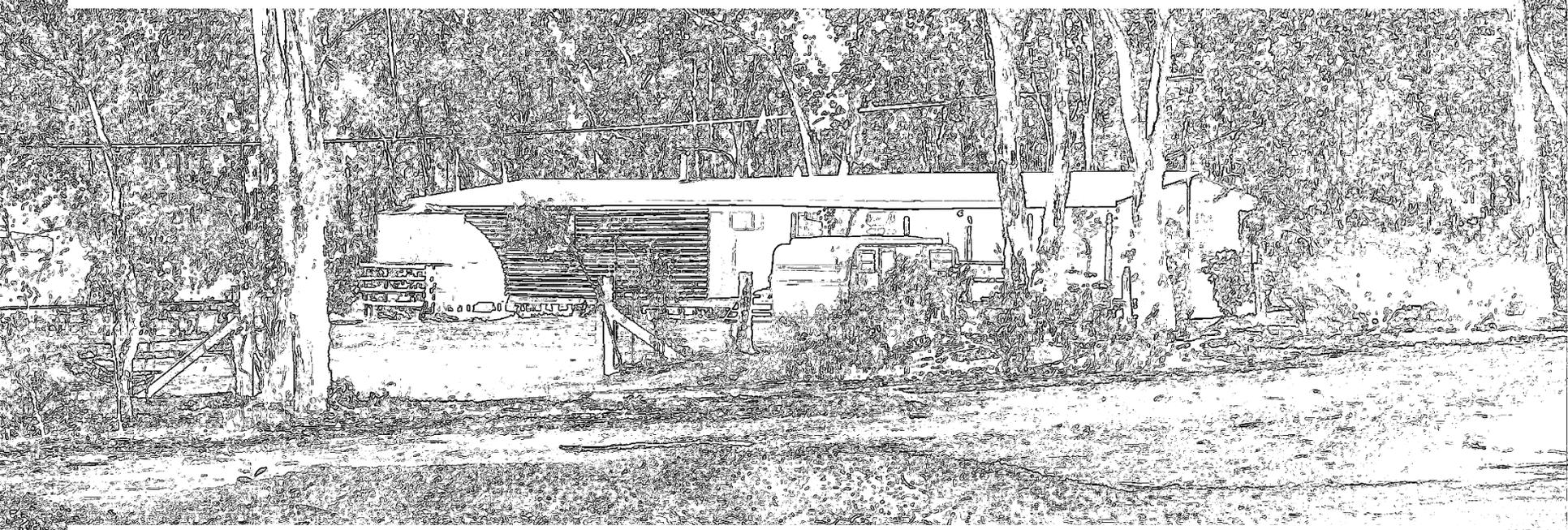# Unpacking the complexities in defining resilience: Relating Tarnagulla community's definition to those within relevant literature

By

Mittul Vahanvati, RMIT
Linda Kennedy, TAEG

RMIT UNIVERSITY

Tarnagulla Alternative Energy Group Inc.

There are approximately 1700 small towns across the country representing 2.3 million people (9.7% of Australia's population).

A lack of holistic framing of resilience and support for its implementation means they are all at risk of disappearing (or similar).

This research project looks at how this problem can be addressed.

This is Tarnagulla

Source: Linda Kennedy

Like many other rural towns around Australia, Tarnagulla faces many 'general' and 'climate-related' challenges.
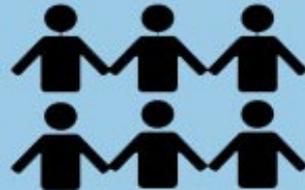
Source: Google Earth

Source: Google maps

GENERAL CHALLENGES

POPULATION

133 People in 2016

37 Families

GENDER

57 % Male

43 % Female

COUNTRY OF BIRTH

75.4%

9.1%
6.6% England
2.5% Netherlands

HOUSEHOLD TYPES

11.4%

8.6%

80%
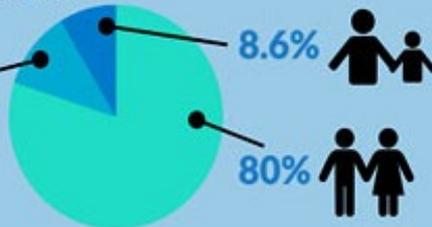
TENURE

24.7% Mortgage

52.1% Owned outright

17.8% Rented

5.5% Not stated

RELIGION

21.6% Anglican
9.6% Catholic
4.8% Uniting Church
44.8% No Religion, so described
13.6% Not stated

LANGUAGE

English

89.8%

GENERAL CHALLENGES

DWELLINGS

112 Dwellings in 2016

Occupied **69.4%**

Unoccupied **30.6%**

100% Separate house

EMPLOYMENT

Full-time	39.5%
Part-time	36.8%
Away from work	10.5%
unemployed	13.2%

0% 10% 20% 30% 40%

OCCUPATION TYPES

Professionals **22.9%**

Labourers **22.9%**

Managers **11.4%**

Technicians and Trades Workers **8.6%**

Community and Personal Service Workers **8.6%**

1/3 Population is occupied in proving care

19.5% Provided care for children

14.9% Assisted family members or others due to a disability, long-term illness or problems related to old age
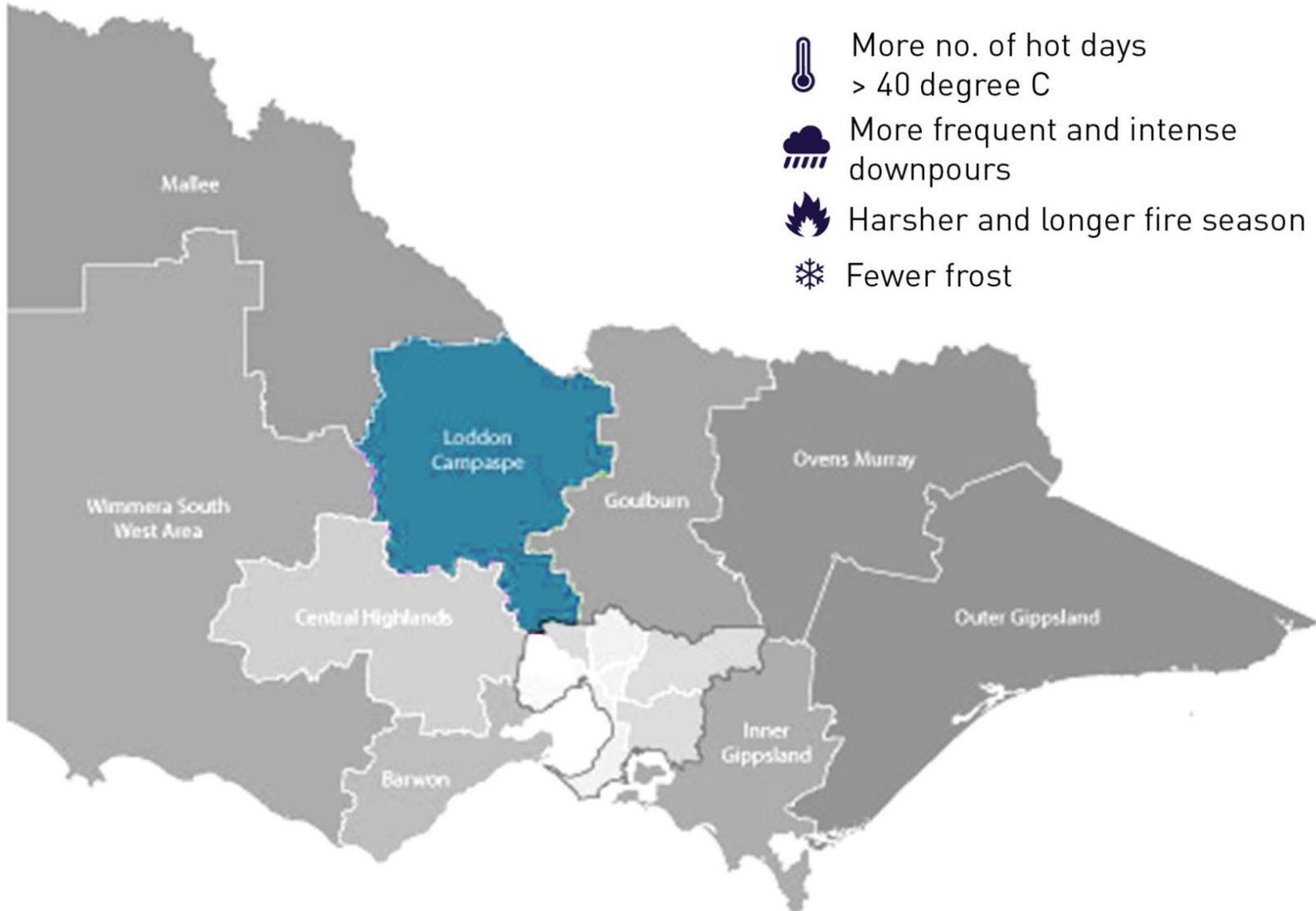
DILAPIDATED HOMES

LOCAL BUSINESS CLOSURE

CLIMATE-RELATED CHALLENGES

Source: Author (adapted from education.vic.gov.au and Loddon Shire Regional Adaptation Snapshot)

PROXIMITY TO BUSH
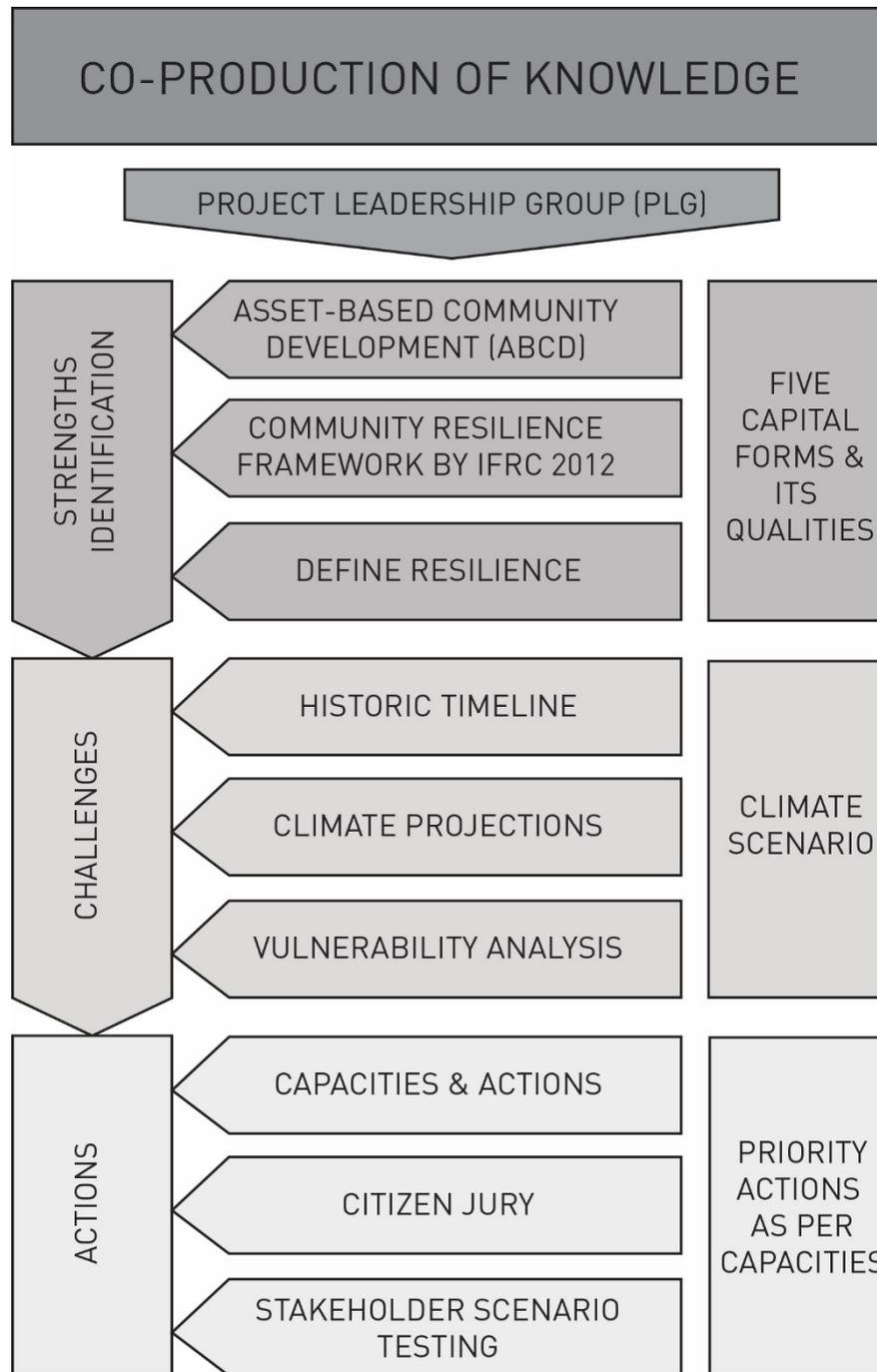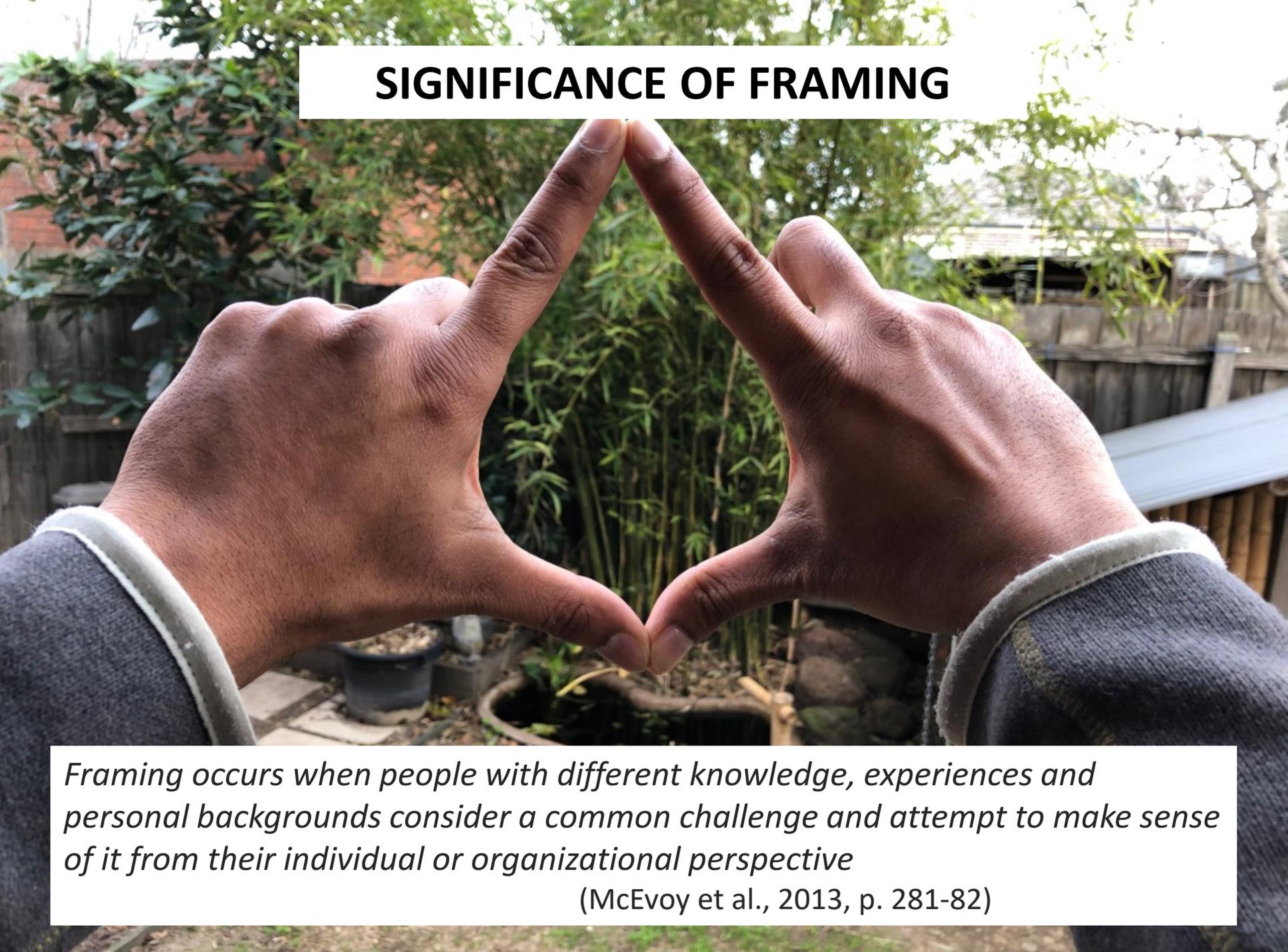
Source: Author

Source: Author

SIGNIFICANCE OF FRAMING

Framing occurs when people with different knowledge, experiences and personal backgrounds consider a common challenge and attempt to make sense of it from their individual or organizational perspective

(McEvoy et al., 2013, p. 281-82)

CONCEPTUAL FRAMING OF RESILIENCE

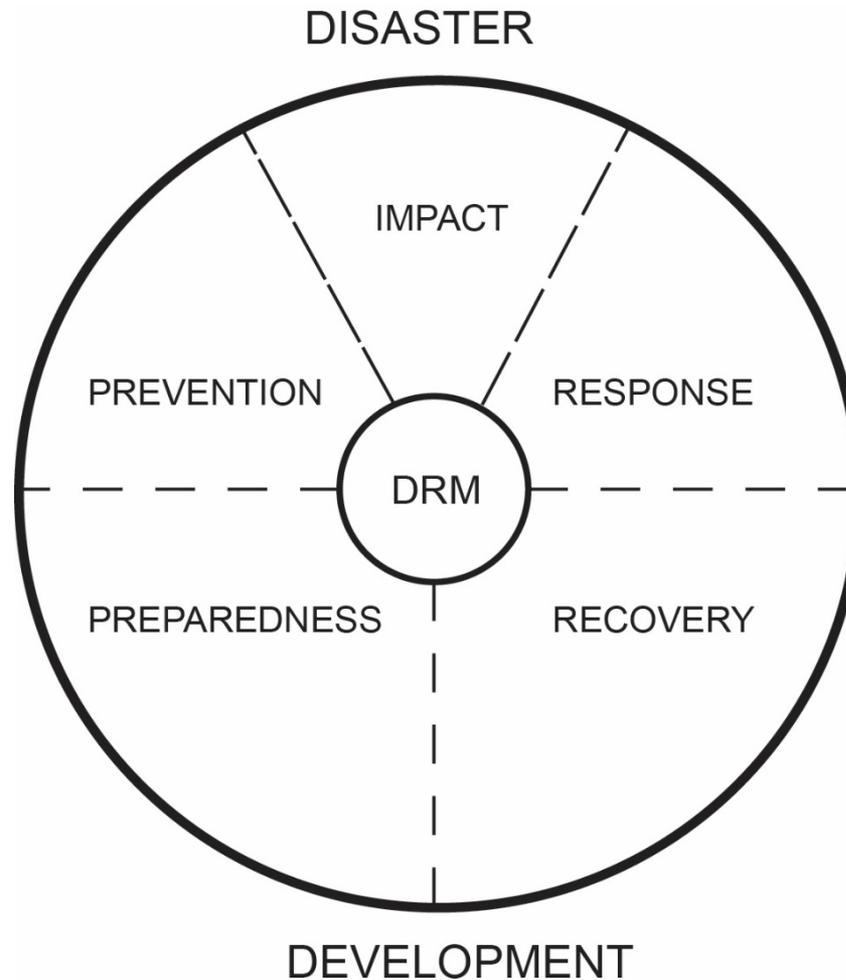| Framing of resilience	Typology based on response	'of who or what'	State and scale	'to what'	'when'
Engineering or Hard science	To resist change Maintenance Robust Well-located	'Hard' assets Physical assets	One stable state Linear	Hazards Rapid onset-disasters	Post-event Reactive Responsive
Social Science Ecosystem; Natural science	Change at margins Redundant Diverse System memory	'Soft' assets Human asset e.g. vulnerable people Social asset Natural asset e.g. species	Multiple stable states Non-linear	Disaster Climate extremes	Pre-& post-event Anticipatory
Socio-ecological systems (SES)	Radical change Learn, adapt Transform Self-organize Resourceful	'hard' and 'soft' asset interactions	Context specific Non-linear Cross-scale/ nested scale dynamic interactions (feedback loops)	General challenges Disasters Climate risk	On-going Adaptive Proactive

Source: Author

DEFINTION OF RESILIENCE IN LITERATURE

The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions (UNISDR 2017).

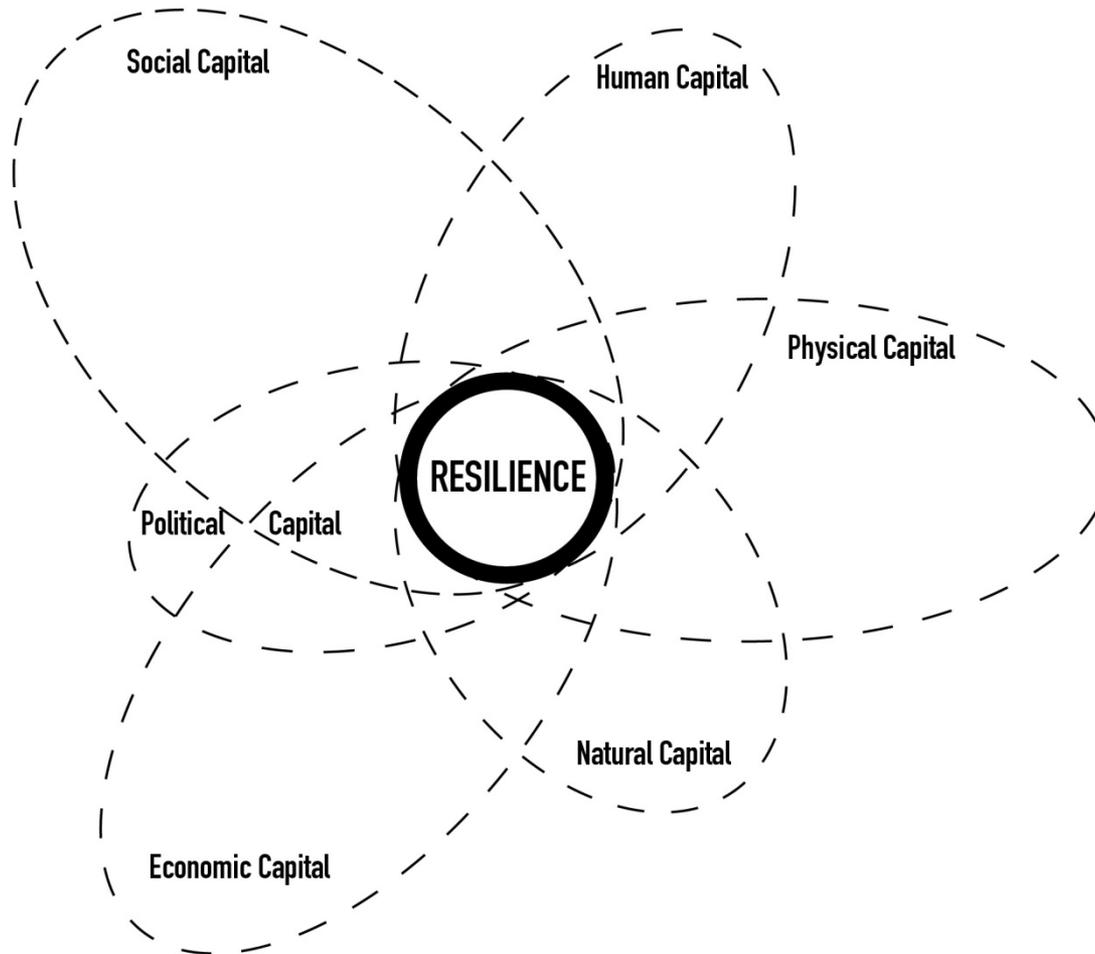Figure 2: A conceptual framework for community resilience

Source: IFRC 2012

OPERATIONAL FRAMING OF RESILIENCE

Disaster Risk Management – Resilience building as a continuous process (source: author)

TARNAGULLA COMMUNITY'S FRAMING OF RESILIENCE CONCEPT

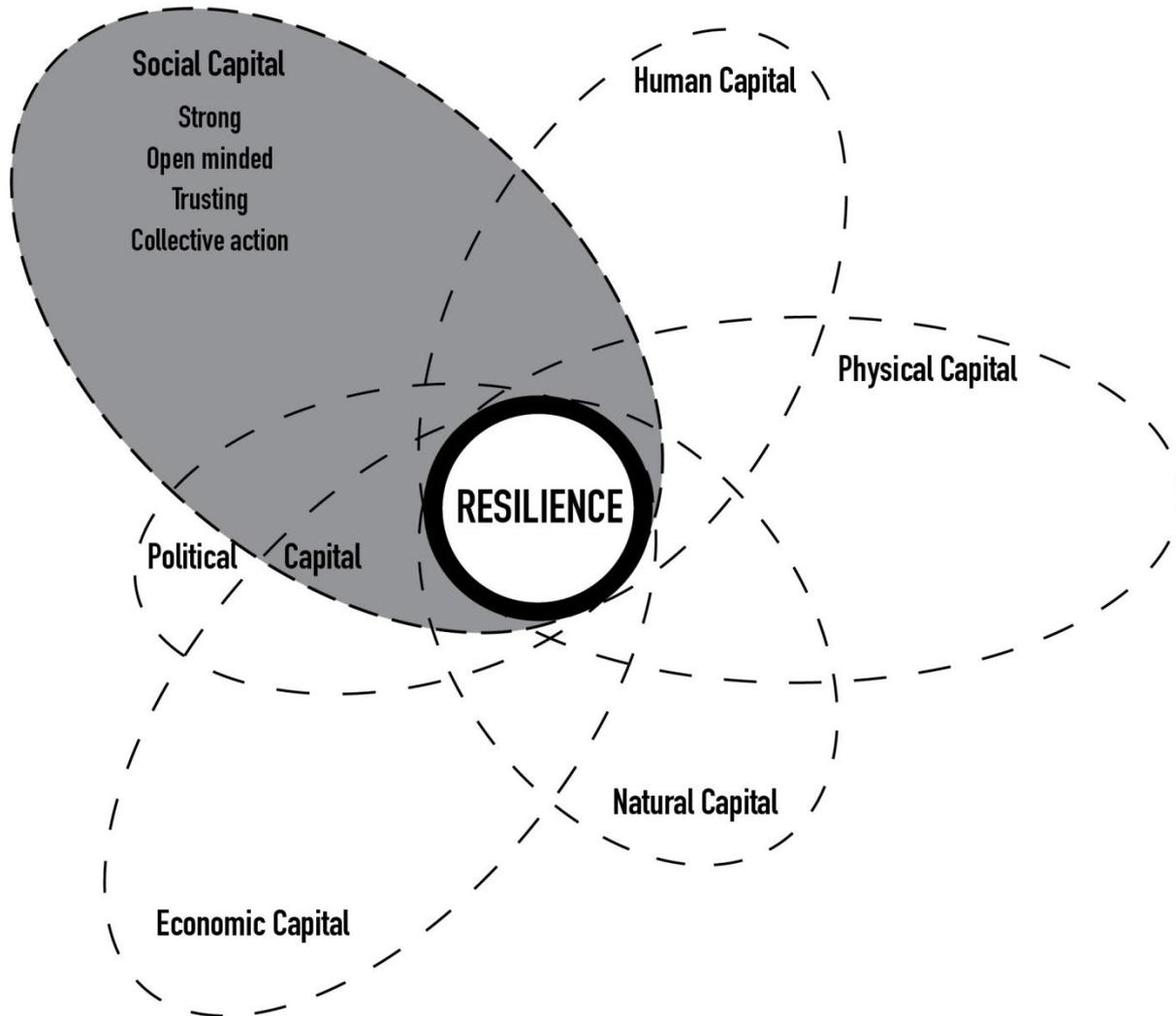| Resilience	Description	% of Respondents
Meaning and attributes of resilience (how)	Well-functioning	40%
	Adaptable, to manage unforeseen situations, recover, bounce back, sustain)	90%
	To transform/ Renew/ Long term/ Thrive/ Adapt	100%
'to what'	Any expected or unexpected scenario/ unknown challenges	80%
'when'	Continuous - During times of need and times of prosperity	80%
Scale and state	Multiple scales (individual, community, town and regional)	90%
'of who or what'	Social asset: Strong, trusting, informed and open-minded community, collective action	100%
	Physical asset	80%
	Economic asset	80%
	Natural asset	20%
	Human asset (Figure 3)	20%

Source: Author

TARNAGULLA COMMUNITY'S DEFINTION

Resilience 'of who and what?'

TARNAGULLA COMMUNITY'S DEFINTION

Resilience 'of who and what?'

Social Capital

Strong
Open minded
Trusting
Collective action

Human Capital

Physical Capital

RESILIENCE

Political   Capital

Natural Capital

Economic Capital

Source: Author

TARNAGULLA COMMUNITY'S DEFINTION

Resilience 'of who and what?'

Source: Author

TARNAGULLA COMMUNITY'S DEFINTION

Resilience 'of who and what?'

Social Capital

Human Capital

Physical Capital

Climate resilient homes
Energy self–sufficiency
Water reliability
Community centre
Emergency shelter
Transport

RESILIENCE

Political Capital

Natural Capital

Economic Capital

Source: Author

TARNAGULLA COMMUNITY'S DEFINTION

Resilience 'of who and what?'

Social Capital

Human Capital

Physical Capital

RESILIENCE

Political Capital

Environmental consideration

Natural Capital

Livelihood diversity
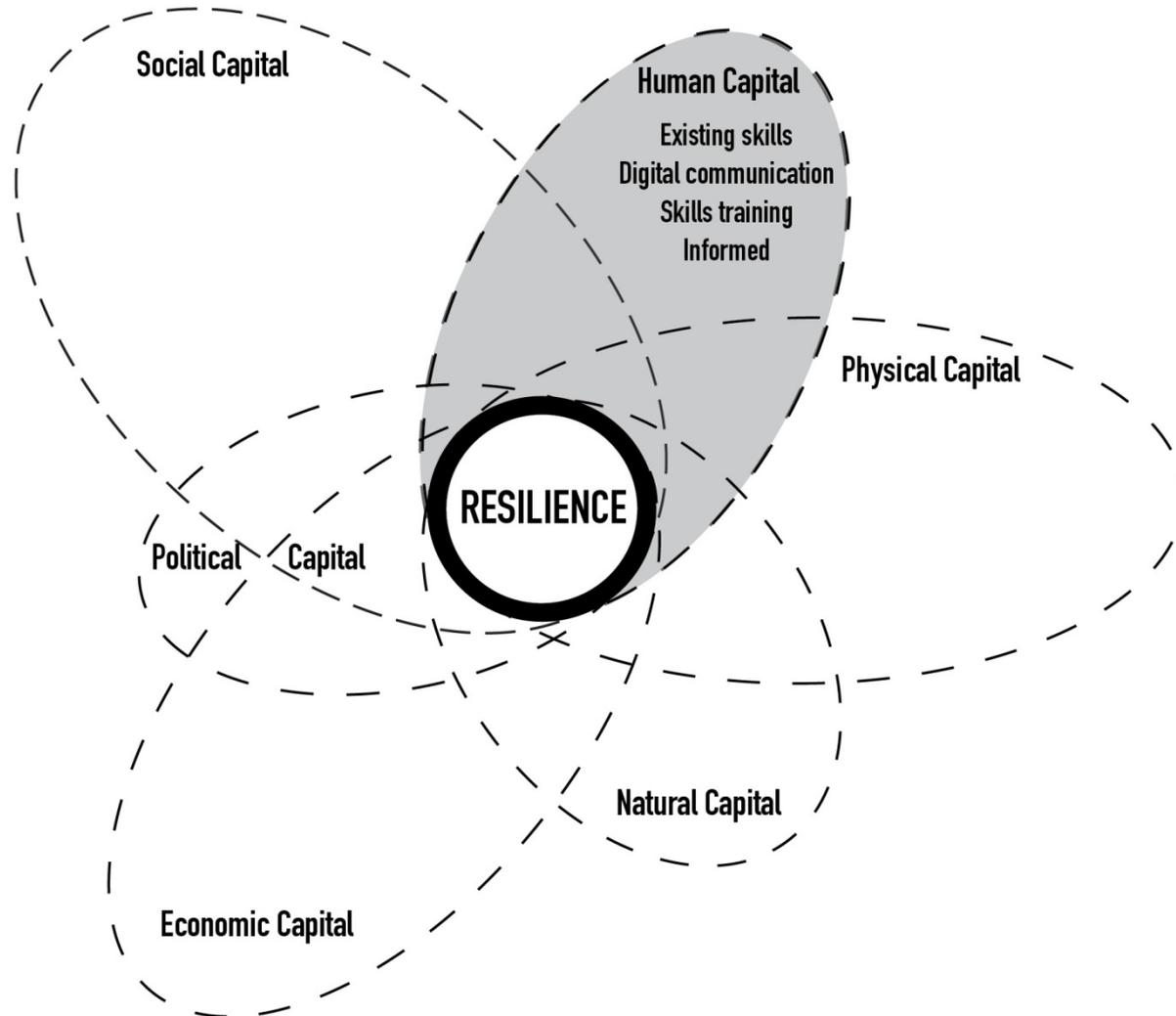Local thriving economy

Economic Capital

Source: Author

TARNAGULLA COMMUNITY'S DEFINTION

Resilience 'of who and what?'

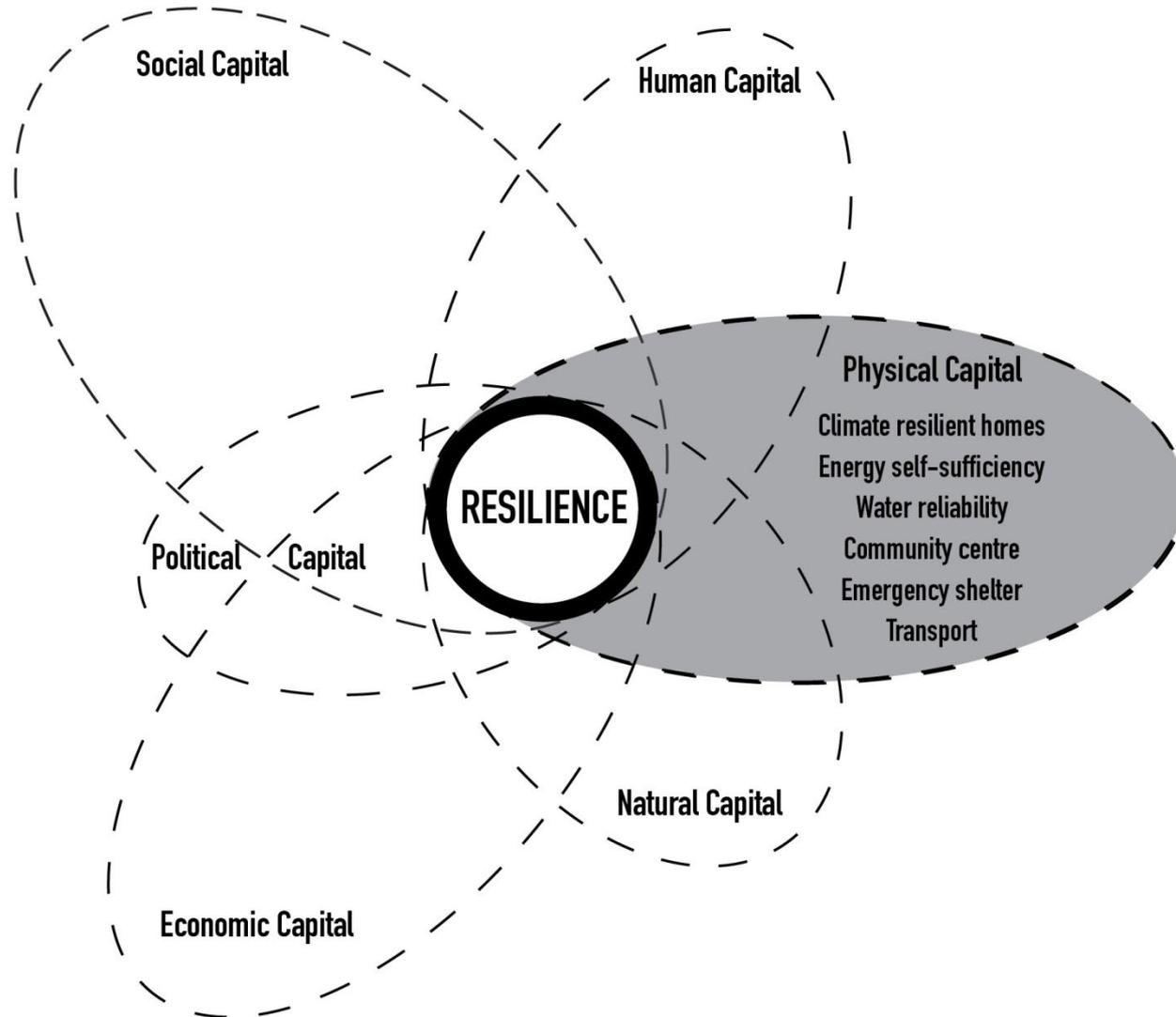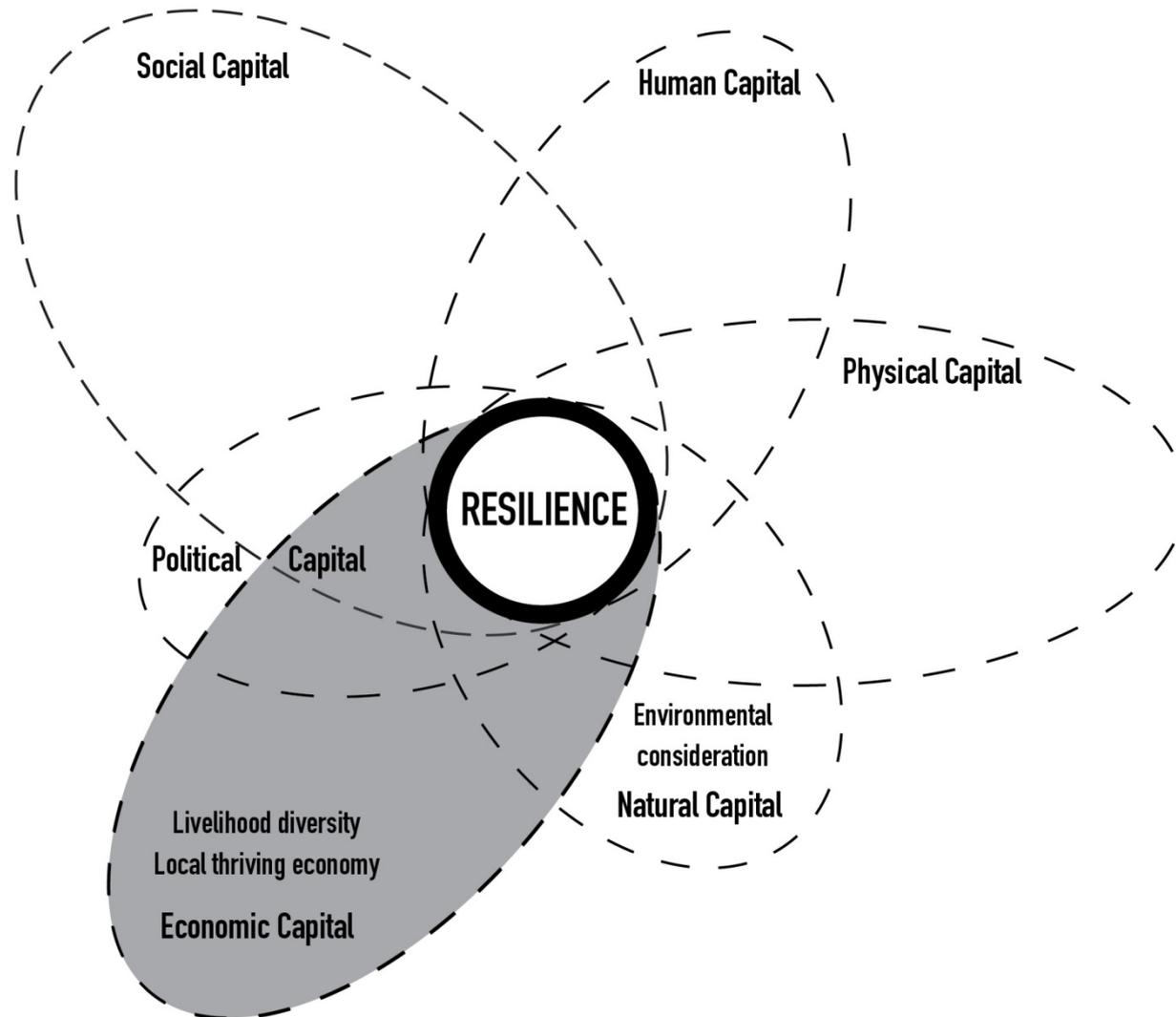# TARNAGULLA COMMUNITY'S DEFINTION

Resilience 'of who and what?'

Social Capital
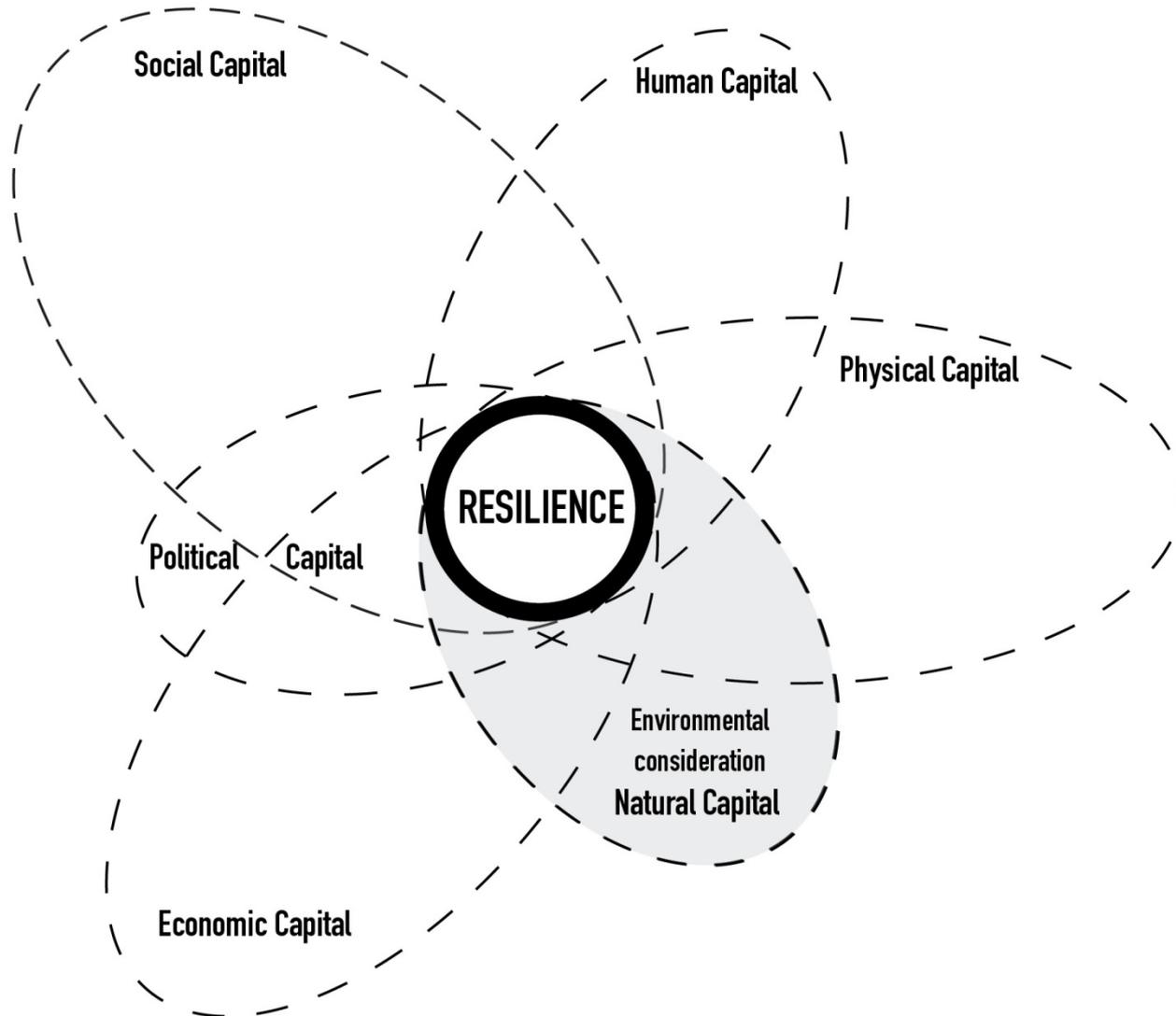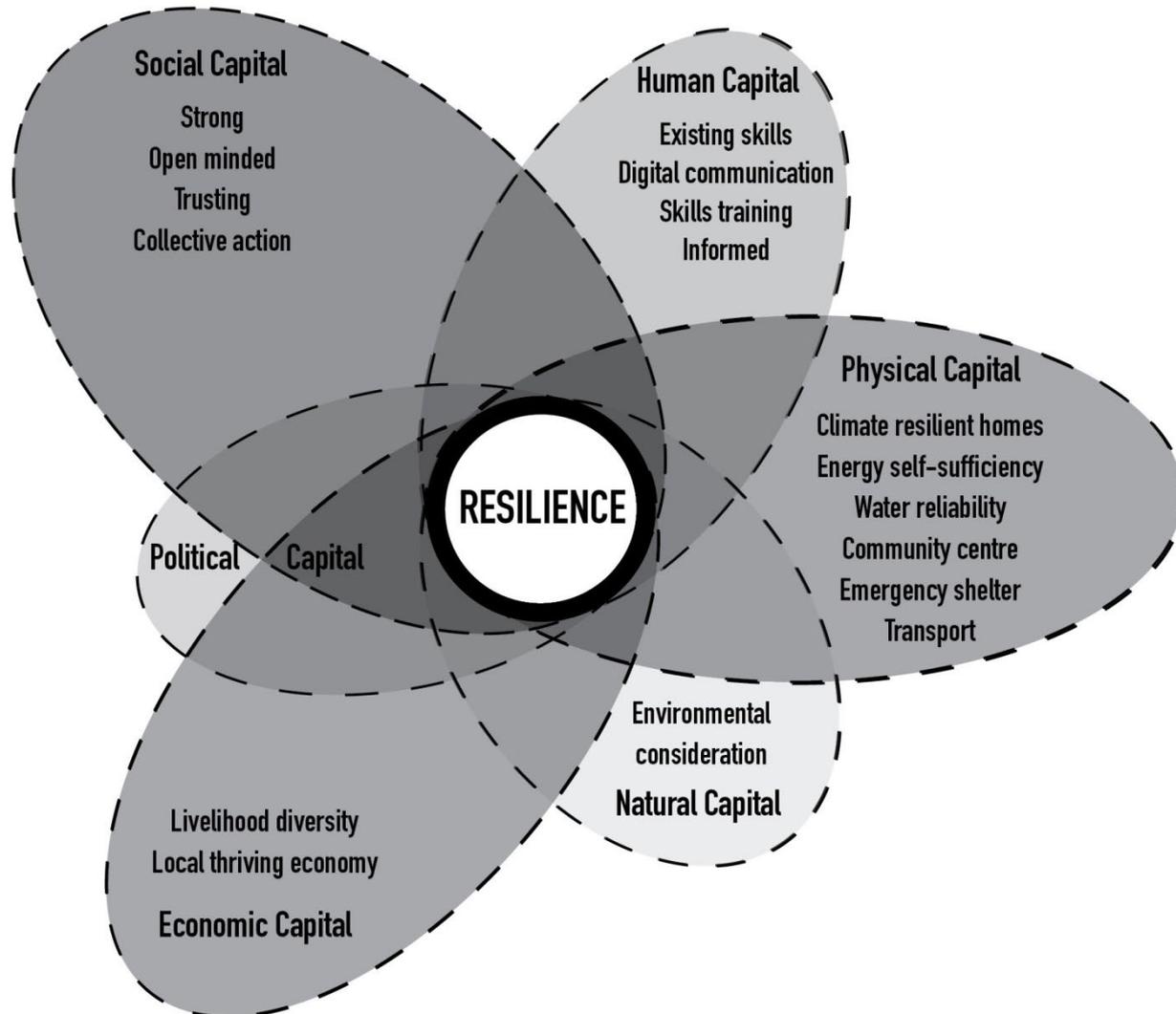Strong
Open minded
Trusting
Collective action

Human Capital
Existing skills
Digital communication
Skills training
Informed

Physical Capital
Climate resilient homes
Energy self-sufficiency
Water reliability
Community centre
Emergency shelter
Transport

RESILIENCE

Political Capital

Environmental consideration
Natural Capital

Livelihood diversity
Local thriving economy
Economic Capital

THE REALITY – A MISMATCH IN FRAMING

A mismatch in framing of resilience at community level and operational level is evident. What is needed is:

- A holistic framing of resilience at community and operational level

- Government support to communities in implementing radical and innovative transformative changes

- One-off or short-term support is not enough. Community needs long-term continued support

- Enabling political voice to community by strengthening relationships between government authorities, emergency/risk management stakeholders and rural communities

THE REALITY – A CALL FOR ACTION

This paper is a call for action from those in power to invest early to maximize return or to help Tarnagulla community help themselves, now, to thrive in future.