Situer les connaissances climatiques des acteurs de l'aménagement du territoire:

retour sur une expérience de recherche qualitative aux Philippines

Webinaire - 15 mai 2020 - Séminaires de Développement Territorial: Outils d'analyse qualitative et recherche urbaine

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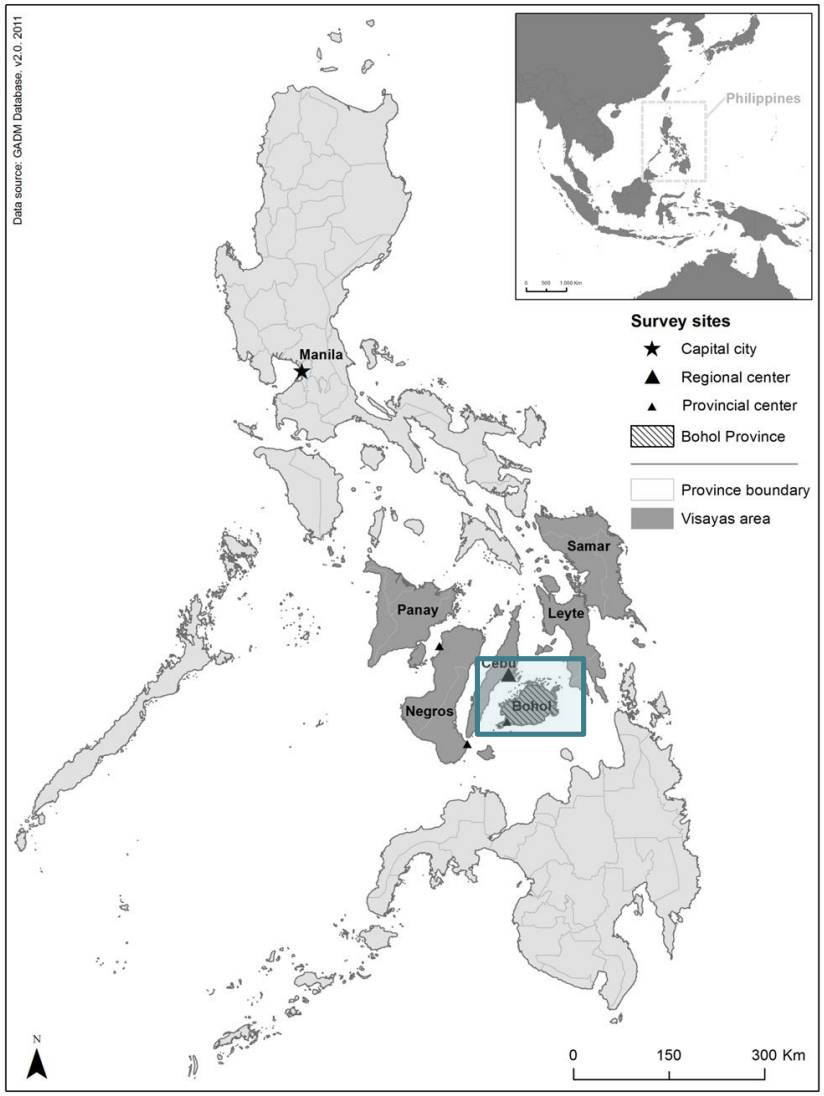
UNIVERSITÉ DE NAMUR

GÉOGRAPHIE

Outline

- Research topic
- Conceptual framework
- Research activities
- Data collection and analysis using NVivo
- Main research results and insights
- Key learnings for qualitative research



Climate change in the Philippines

- Over 7,000 islands
- 333 hab./km²
- 70% of municipalities located along the shoreline
- Ranks third in terms of global disaster risks (typhoons, floods, landslides, earthquakes)
- Impacts on livelihoods
- Climate change uncertainties coupled with fast growing population dynamics and a decrease in safer lands

Urban flood in Metro Manila

August 2012

Climate change - along with population dynamics and the gradual decrease in availability of safer land – means it is almost inevitable that humans are increasingly located in potentially dangerous places (Lavell and Mansilla 2003)

Planning 'for' climate change

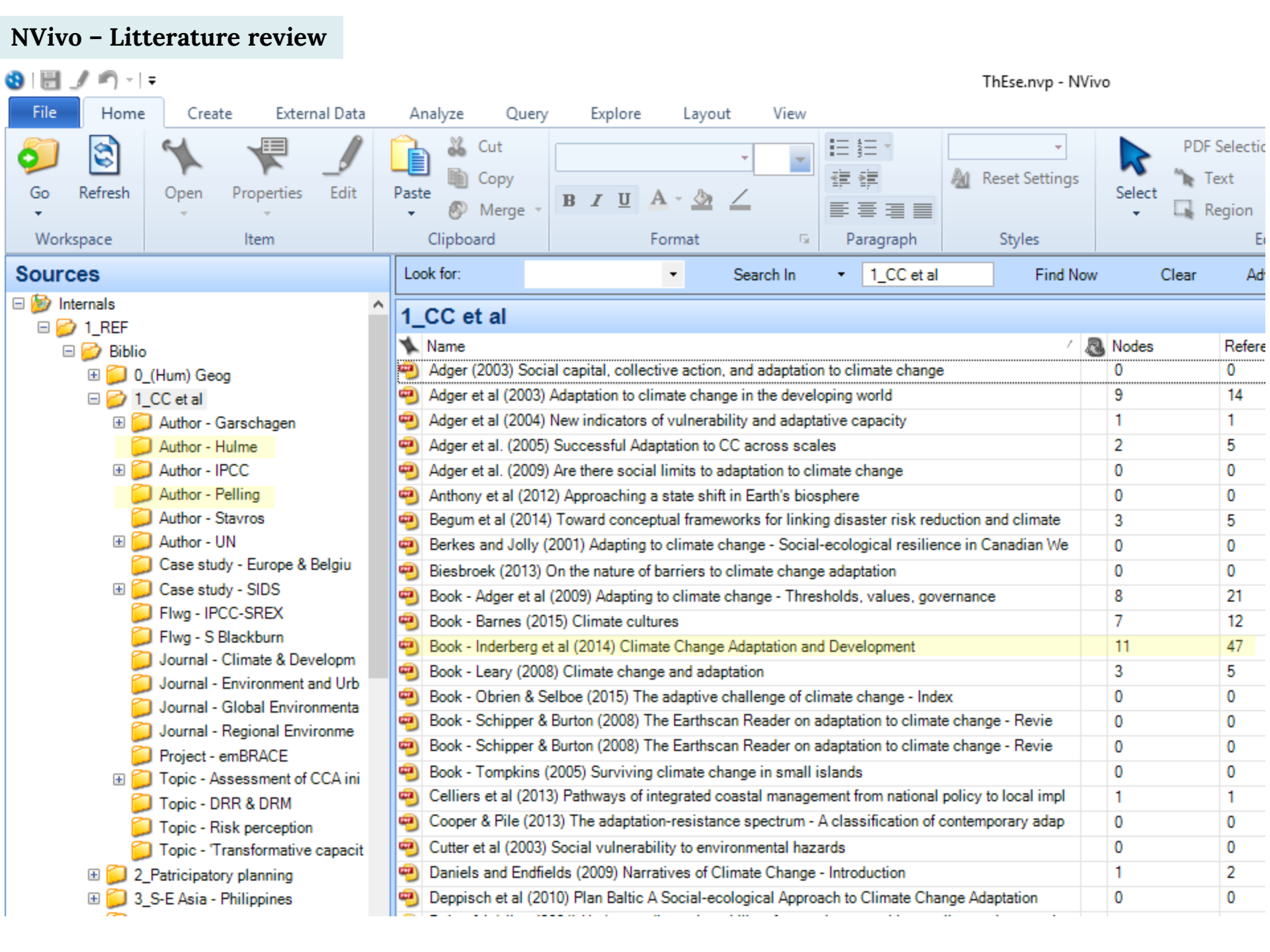
- Frequently promoted within the fields of planning and development
- Undertaking actions to reduce the risks and capitalize on the opportunities associated with climate change

  E.g. Use of climate predictions to derive regulations for urban growth in flood prone areas

- Limitations:

- Climate predictions presents fundamental, irreducible uncertainties
- Climate change = slippery concept to demonstrate empirically
- Adaptation strategies often focus on techno-managerial planning <> promote debates about future development pathways

NVivo – Litterature review



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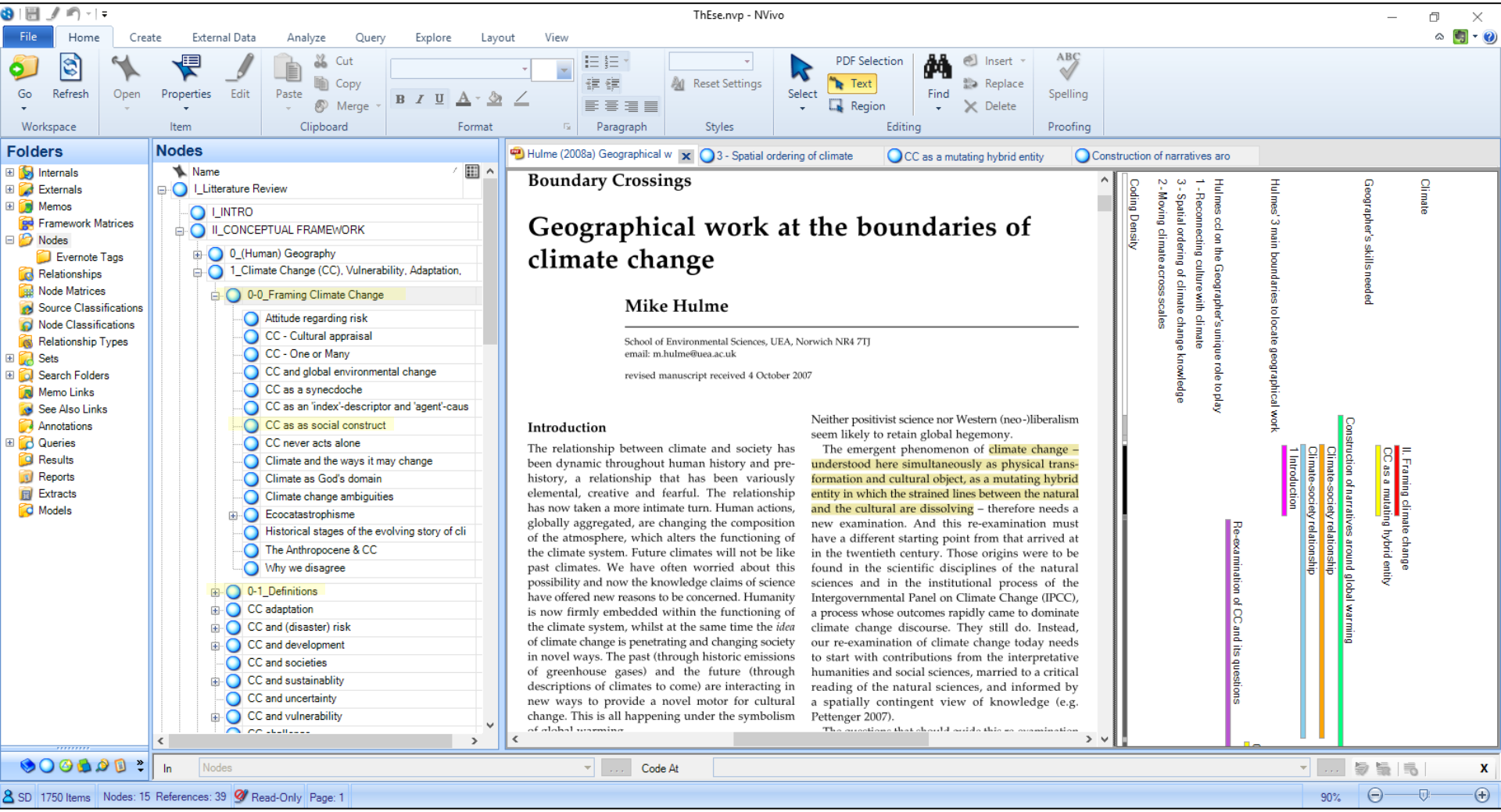
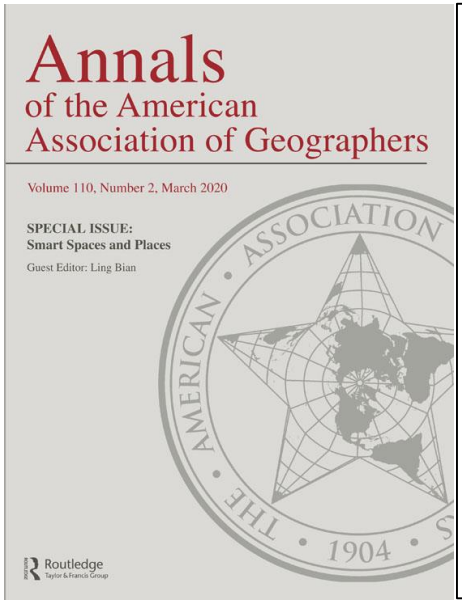


Conceptual framework & epistemological stance



Planning *with* Climate Change? A Poststructuralist Approach to Climate Change Adaptation

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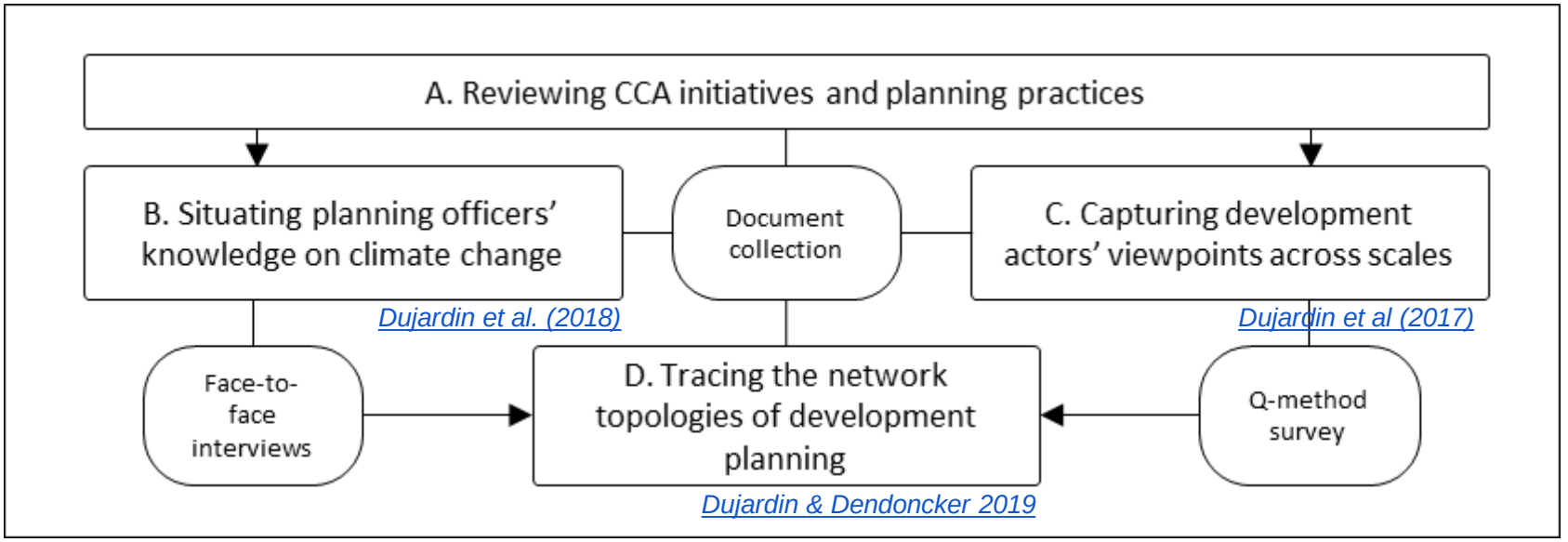
This article calls for a stronger engagement by geographers with the concept of socionature as a vehicle for guiding adaptation thinking in development planning. Drawing on literatures from poststructuralist geographies, it argues for a relational, hybrid ontology of climate change adaptation grounded in multiple perspectives, knowledges, and more-than-human relations. Going beyond this stance, a framework based on the idea of planning *with* climate change is proposed for a revised approach to adaptation that calls for more-than-social planning practices embedded in radically more integrative planning processes and the redistribution of power across the climate and planning systems. The article ends by highlighting some of the key challenges that such a project faces for scholars working in the field of planning and development research. *Key Words: climate change adaptation, development, human geography, planning, poststructuralist theory.*

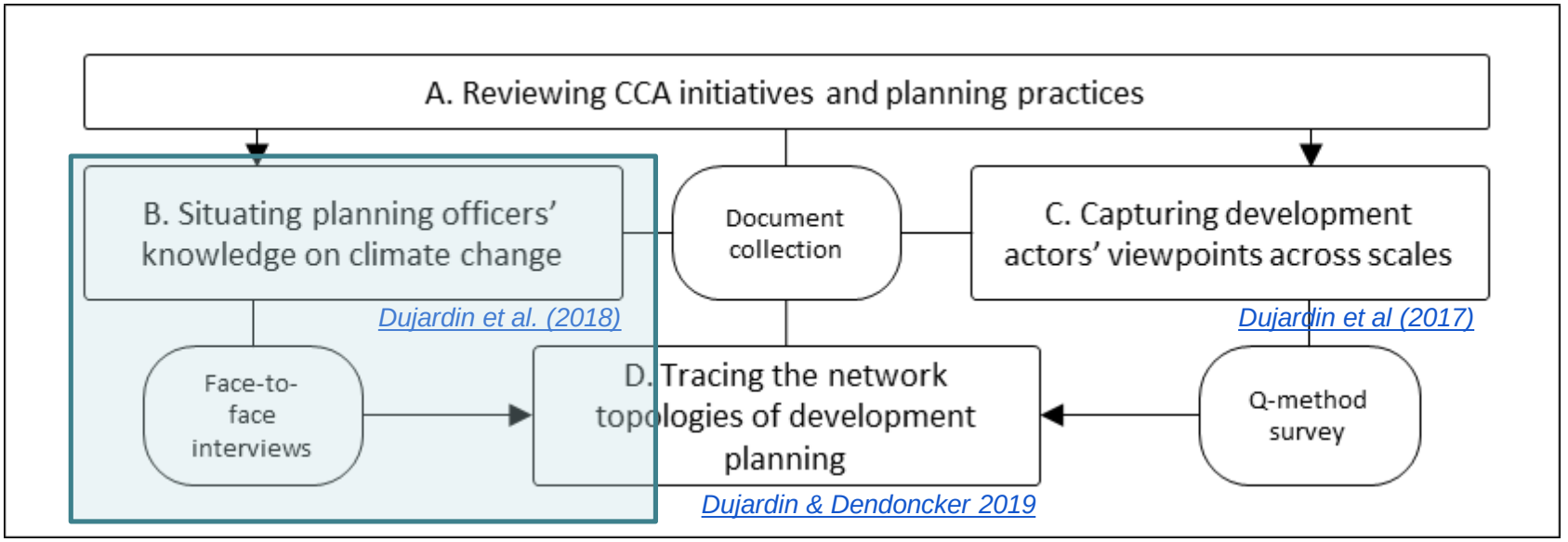
Dujardin (2019)

Main research activities



A. Overview of current planning practices and adaptation initiatives in the Philippines
B. In-depth understanding of planning officers' perspectives as it is revealed in their everyday experience
C. Systematic comparison of actors' viewpoints on adaptation from government and civil society organizations at the local, regional, and national level
D. Relational analysis including more-than-human actors involved in local development planning

Main research activities



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Research gaps & research questions

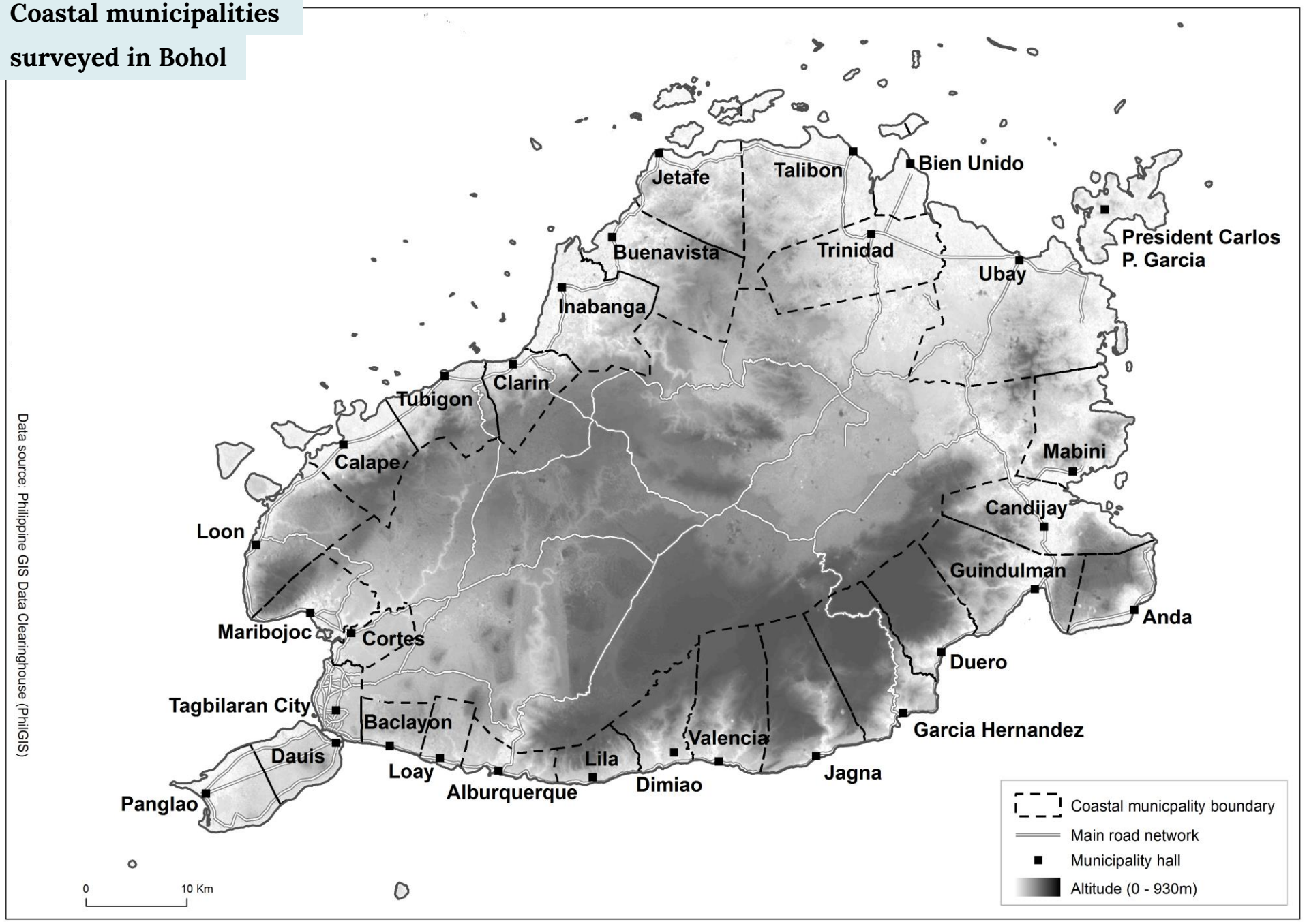
Research gaps (Hulme 2008)

- Need for reconnecting climate with cultures
- Moving climate across scales
- Spatial ordering of CC knowledge

Research questions

- How municipal planners engage with the idea of climate change?
- What types of knowledge is involved?
- Where does it come from (within/outside the planning system)?

Coastal municipalities surveyed in Bohol



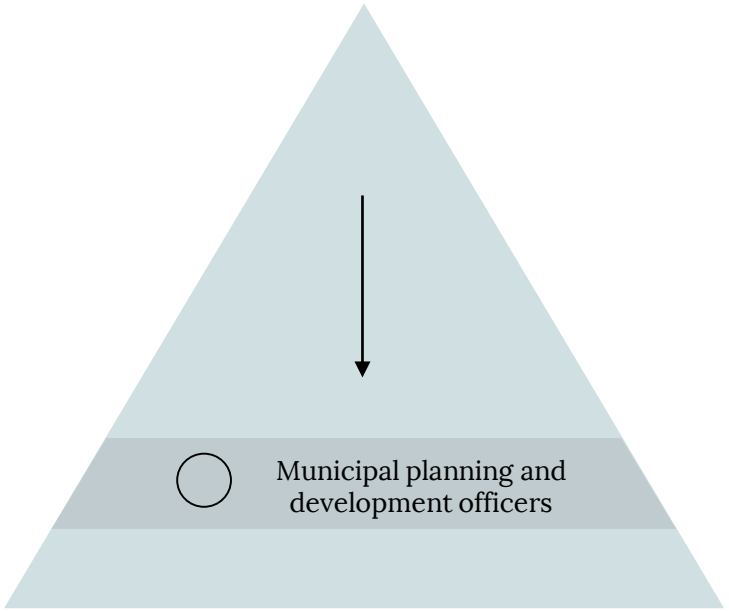
South: Steep coastline

> landslides and coastal erosion

North: lower lands and small islets

> sea level rise and storm surges

Municipal planning and development officers (MPDCs)



Investigating municipalities

- Key actor in the national strategy of mainstreaming CCA into local development plans (2009 CC Act)
- Potential for building place-specific responses to climate change

Valuing planning officers' experiences

- 'On-the-ground' experiences and practical knowledge
- Bridge between policy (political component) and practice (community needs)

Data collection & Analysis

Face-to-face interviews

- 30 municipal planning and development officers
- Semi-structured interview guide > Key themes, Flexibility

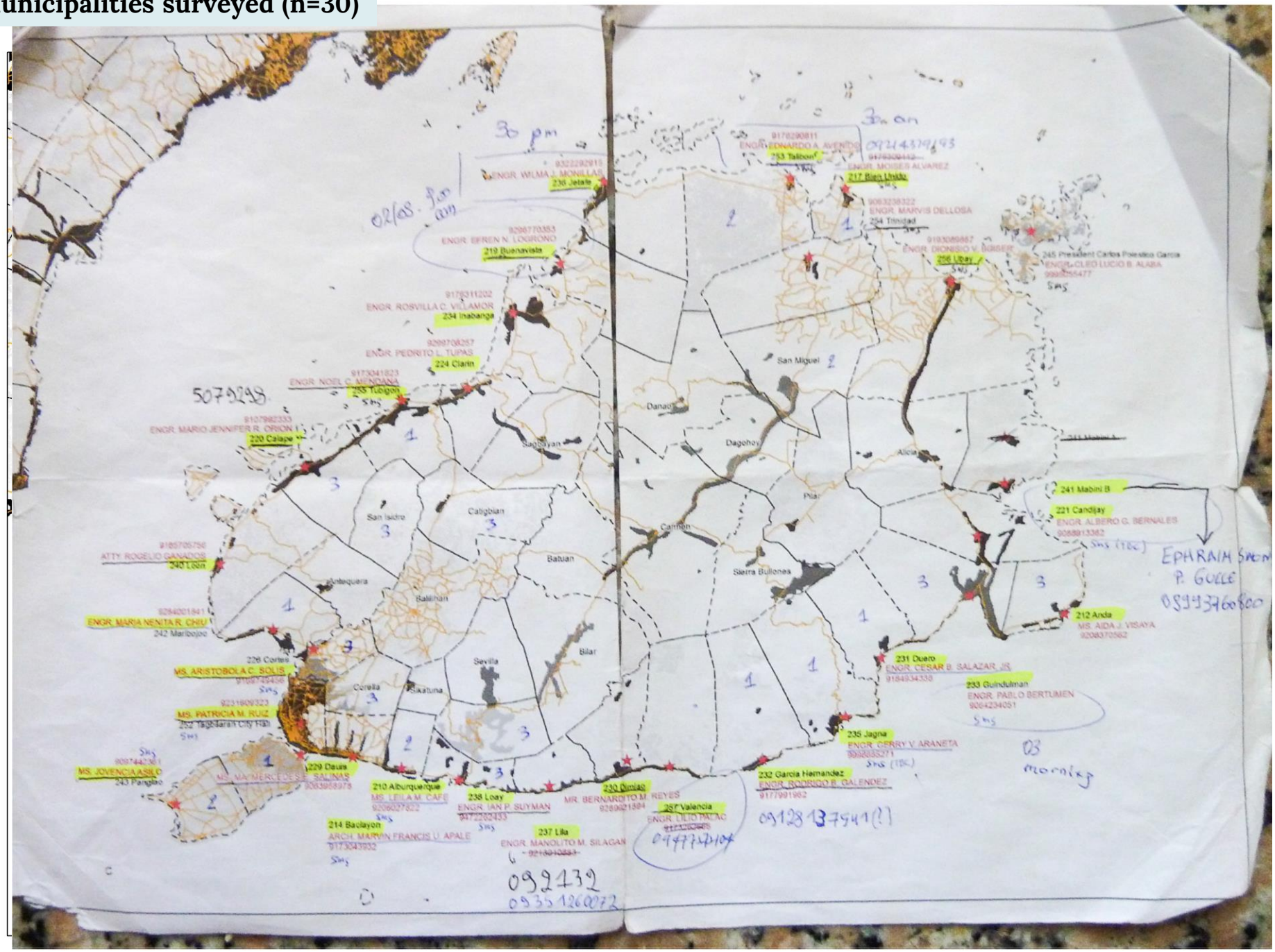
Mental maps

- Simplified map of the Municipality
- > Identification and spatialization of vulnerable areas

Planning documents

- Comprehensive Land Use Plans (CLUPs)
- Disaster risk reduction management (DRRM) plans
- ...

Municipalities surveyed (n=30)



Interview guide

SEMI-STRUCTURED INTERVIEW

Municipal Planning and Development Coordinator (MPDC)

Officer's perception of climate change impacts

Q0. What about the 'climate' in your Municipality? Is it important in people's daily life?

Q1. Do you perceive signs in your area that the climate is changing?

e.g.: unpredictable season, excessive heat, temperature change, heavy rains and flooding, drought, rising sea level

Q2. Does it affect people more than before? How?

e.g.: increase of natural hazards (floods, landslides, storm surges, tropical cyclones, sea level rise, droughts), flood damages, disease outbreaks, water resources depletion

Q3. What are the specific areas and populations affected in your Municipality? How do they perceive it? Are they requesting for interventions?

Q4. Do you think this lead to more environmental problems?

e.g.: Waste management, deforestation, natural hazards, overfishing, soil depletion, water management

Municipality response to climate change

(Development) Planning tools

Q5. Does your office have a role to play in responding to climate change impacts? How?

Q6. Did your office elaborate specific plans, programmes or projects which aim at addressing climate change impacts?

e.g.: CLUP, CDP, DRRM Plan, LCCAP

Q7. What about the other departments from your Municipality (engineer office, health, etc.)? Have they undertaken specific initiatives? Have they taken measures?

Q8. In which ways those initiatives (plans, programmes, projects, etc.) will benefit the community?

e.g.: Improving disaster response vs building resilience and adaptive capacity

Openings for participation

Q9. Was there people/public participation in the elaboration of those plans?

Q10. What type?

e.g.: Information – Consultation – Partnership

Q11. Who participated? Which stakeholder?

e.g.: NGOs, POs, University/ Scientific institutions, Parishes

Q12. How did you proceed? Length of the process? Types of activity? Types of output? Number of meetings?

Q13. What benefits participants gained from their participation?

Q14. Did it imply changes in any of the following policies?

e.g.: Settlement policies, protection land policies, production land policies, infrastructure policies

(Spatial) planning measures

Q15. Can you tell me in what way urban planning and land use management can help facing climate change impacts?

e.g. individual vs collective measures

Q16. Which measure do you think would be the most suitable? Why?

e.g.: Zoning, infrastructure building (sea walls, bridges), setbacks and easement zones, improving construction types and materials, relocation

Civil society response to climate change

Q17. Are there community-based organizations in your Municipality that can help facing climate change impacts?

Q18. Are there community initiated projects which address climate-related environmental issues?

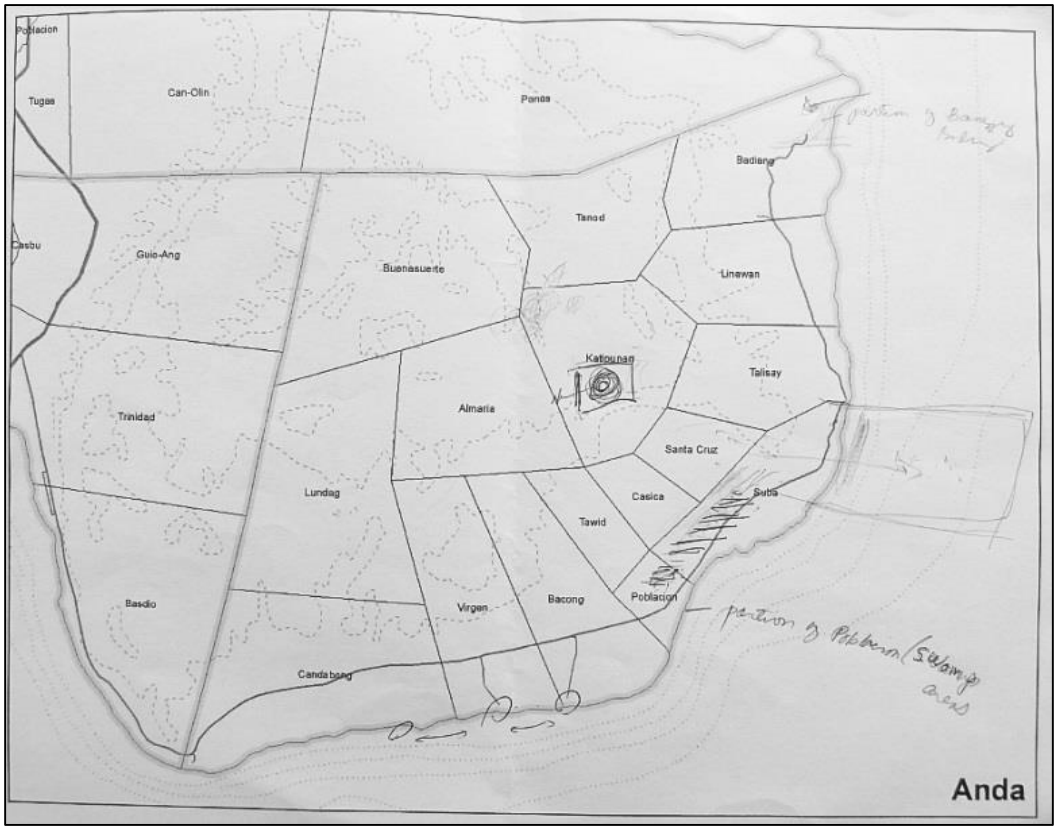
Documents to be collected

- *CLUP – Comprehensive Land Use Development Plan*
- *LCCAP – Local Climate Change Adaptation Plan (Municipal Local Government Officer – MLGO?)*
- *Ordinances which address CCA/DRM*

Officer's characteristics

Gender, Age, How long have you been serving as a MPDC? E-mail address

Mental Maps


Poblacion
Tugas
Can-Olin
Panas
Badiang
Tanod
Casbu
Guio-Ang
Buenasuerte
Linawan
Katipunan
Talisay
Trinidad
Almaria
Santa Cruz
Lundag
Casica
Subta
Tawid
Basdio
Virgen
Bacong
Poblacion
Candabong
Anda

Interpretational strategy

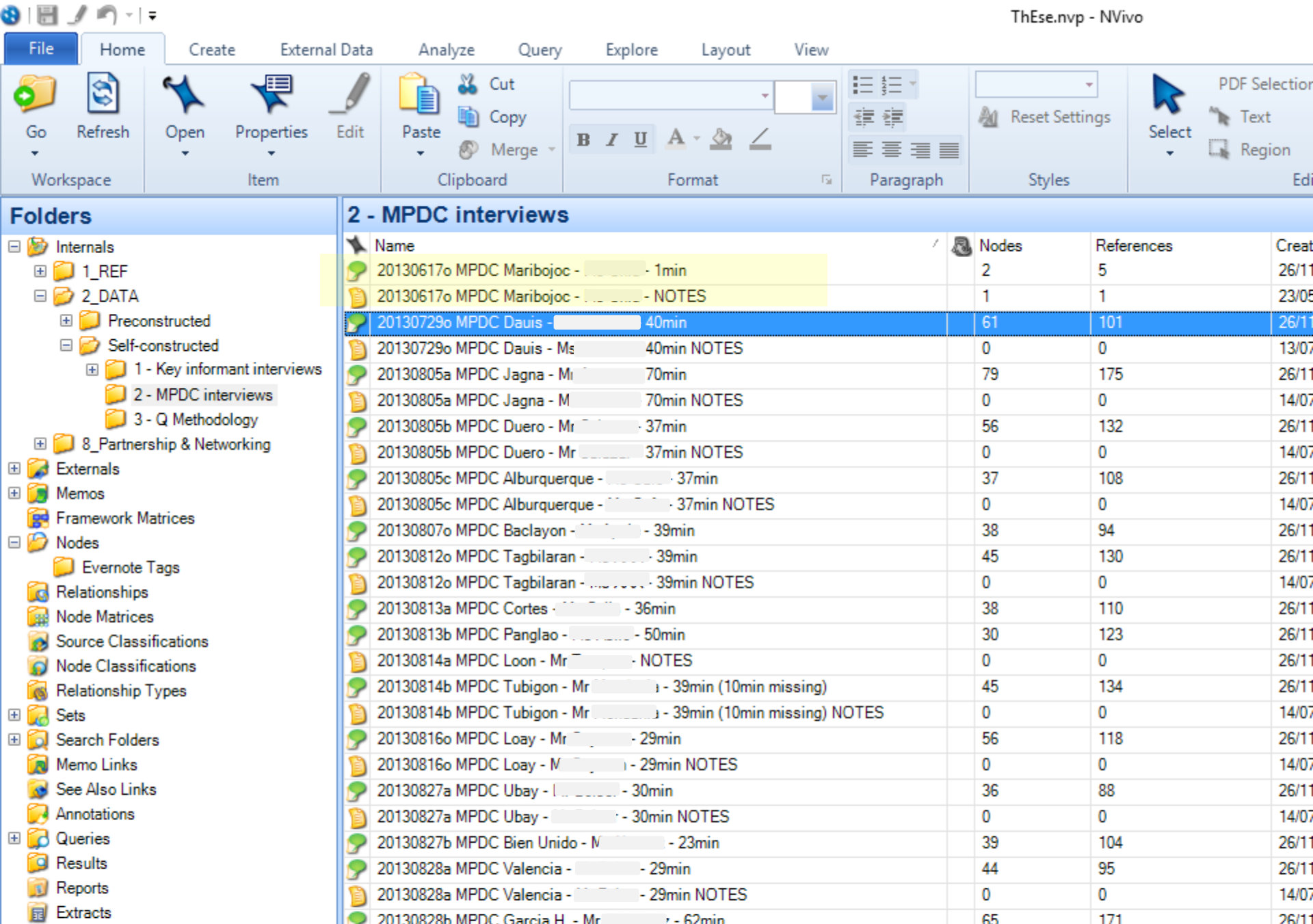
Cloke et al (2004)'s 'artisanal' approach

- Grounded theory based theory' (Glaser and Strauss 1967)
- Top-down (research questions) & Bottom-up (topics raised)
- Mutually informative, iterative

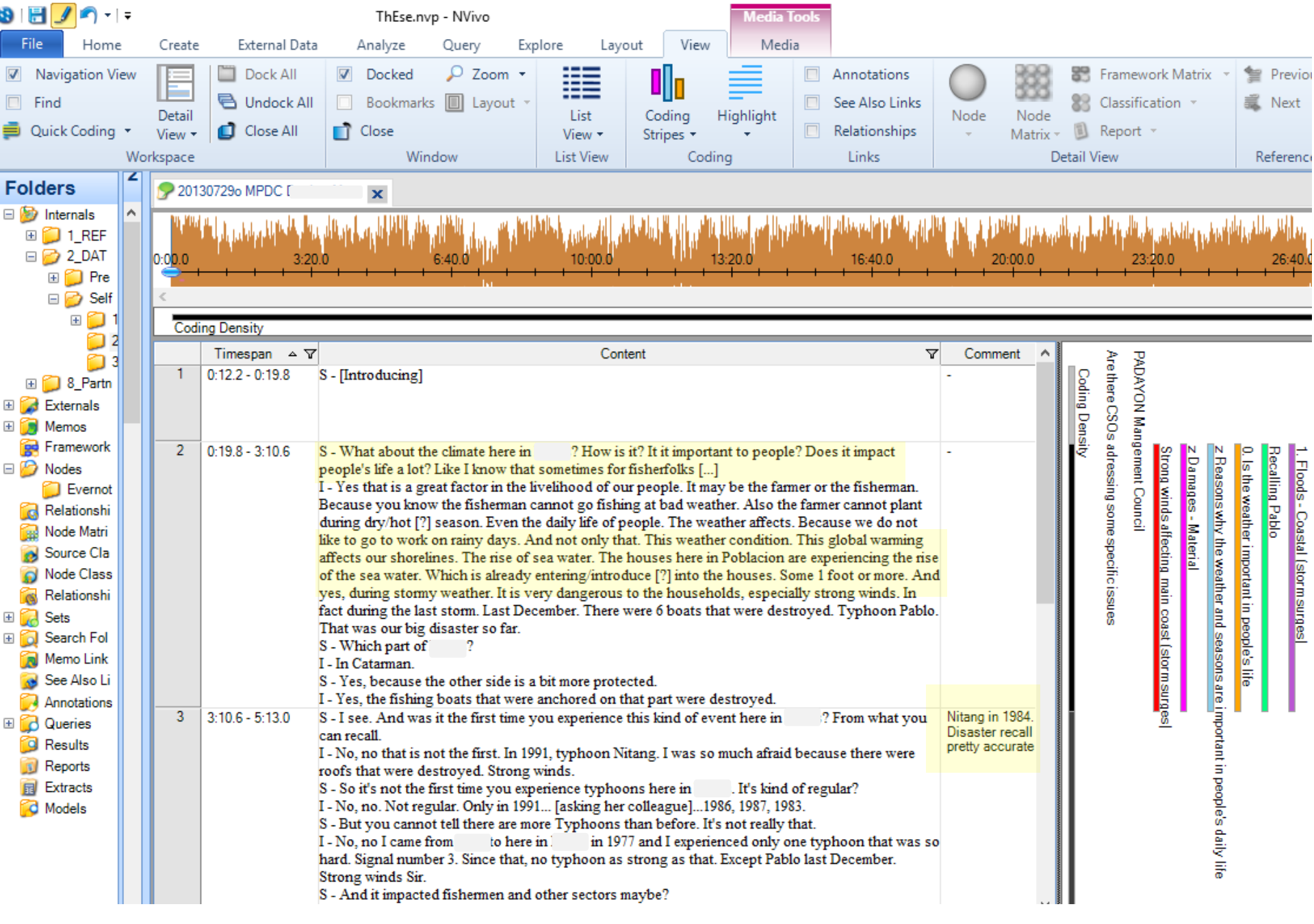
Coding

- Close reading of interview transcripts (89.155 words) and documents
- Thematic > Axial > Selective

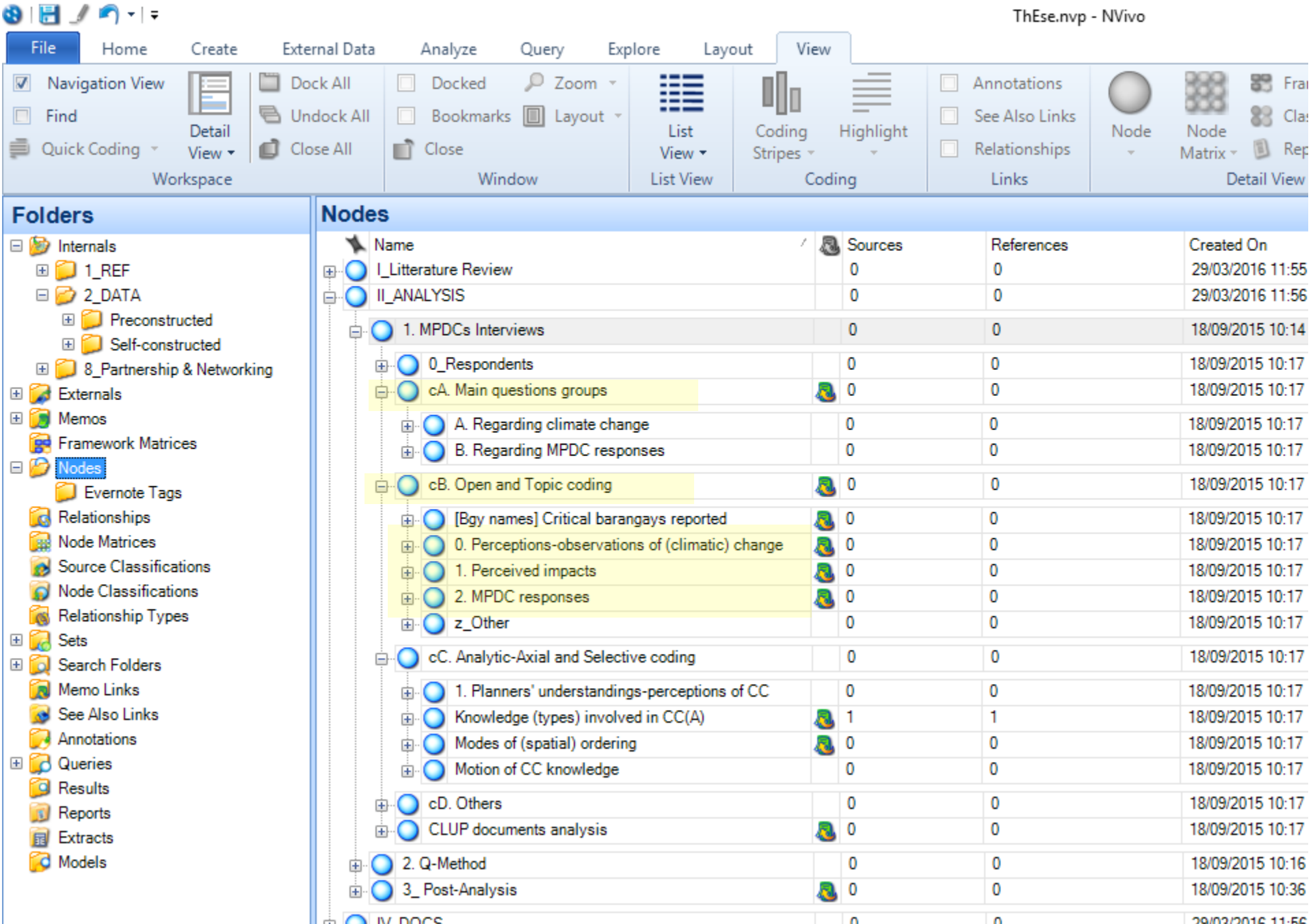
Nvivo – Organising interview records



Nvivo – Transcription



Nvivo – Coding (open/topic)



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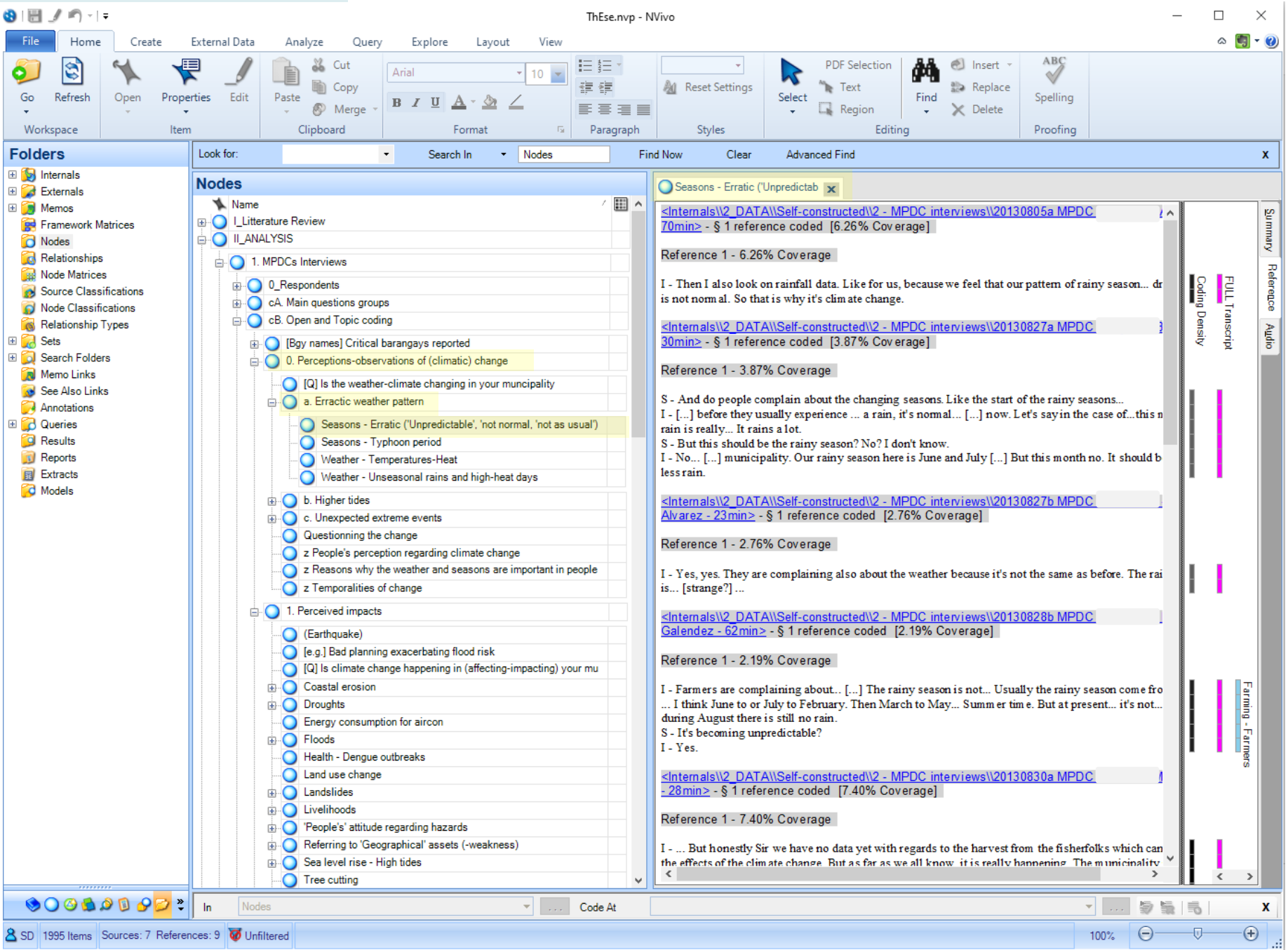

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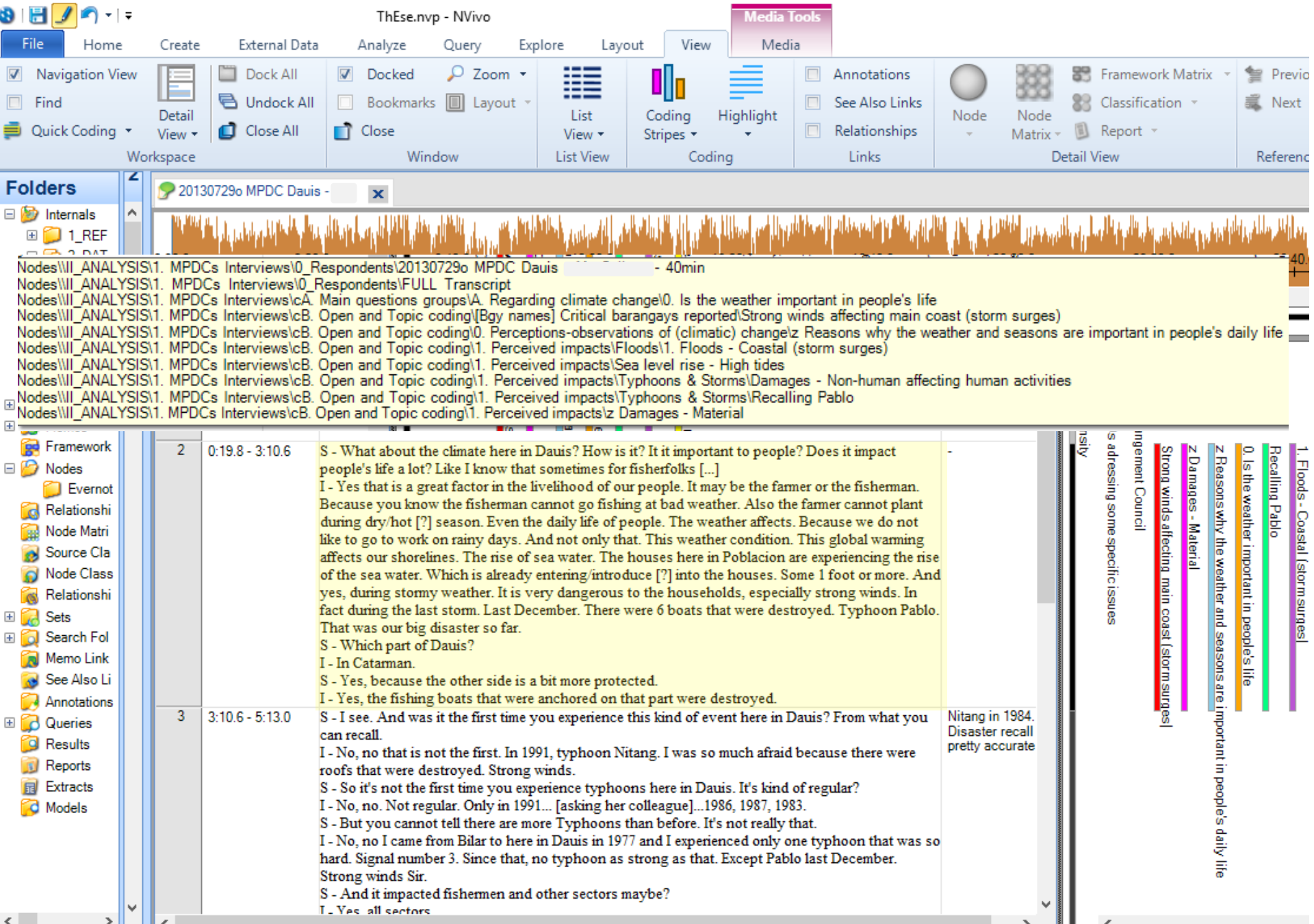

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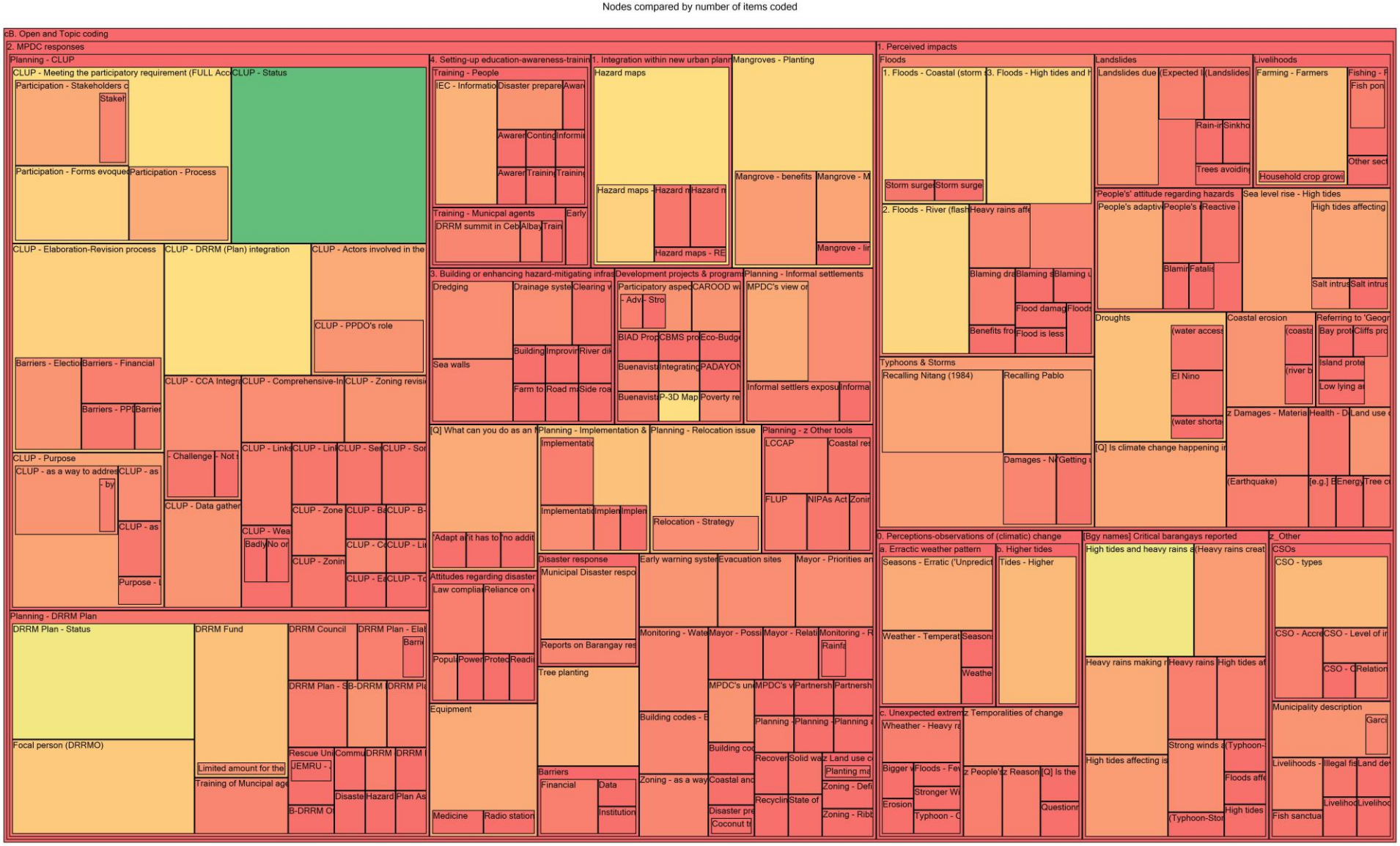

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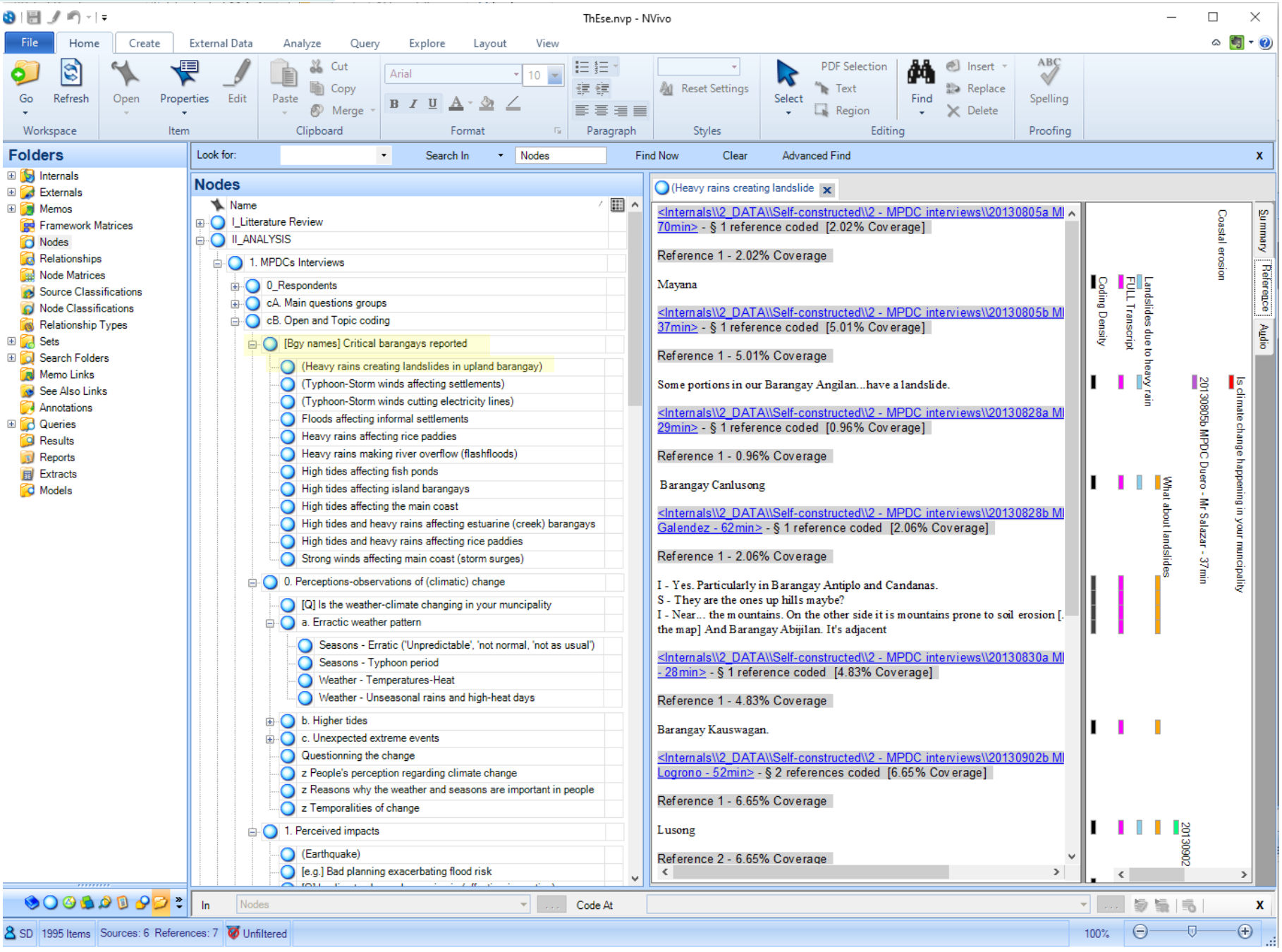

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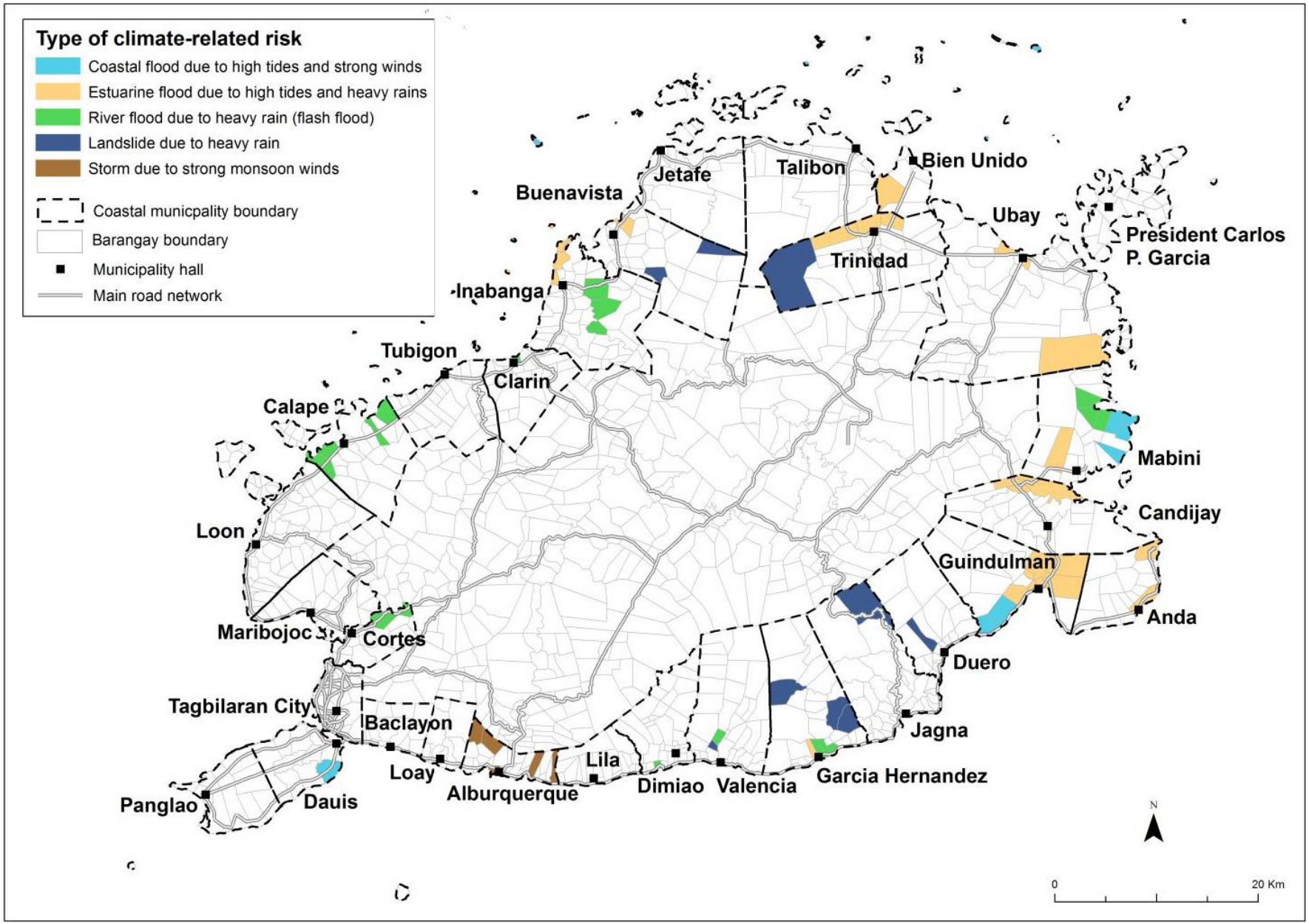
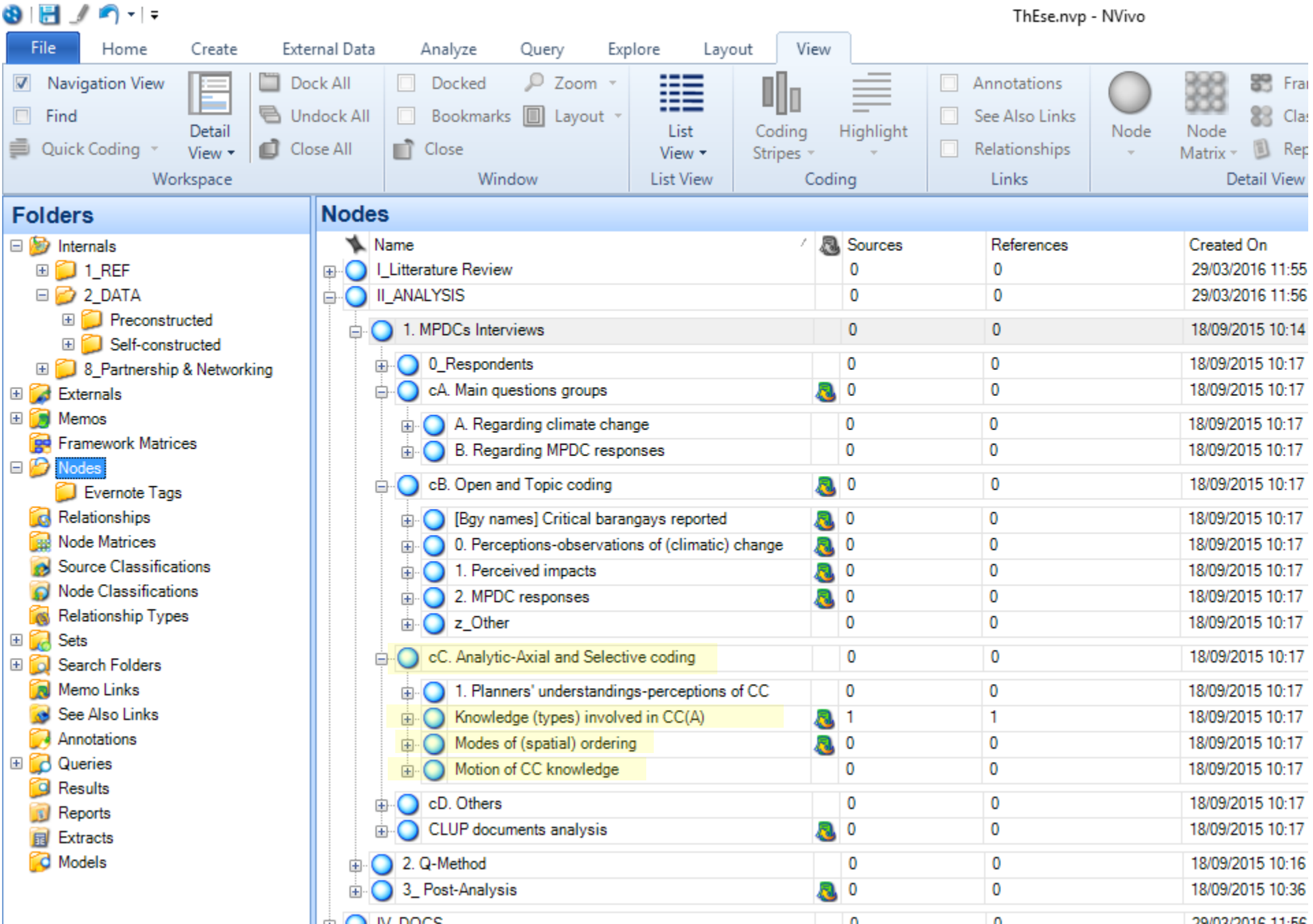
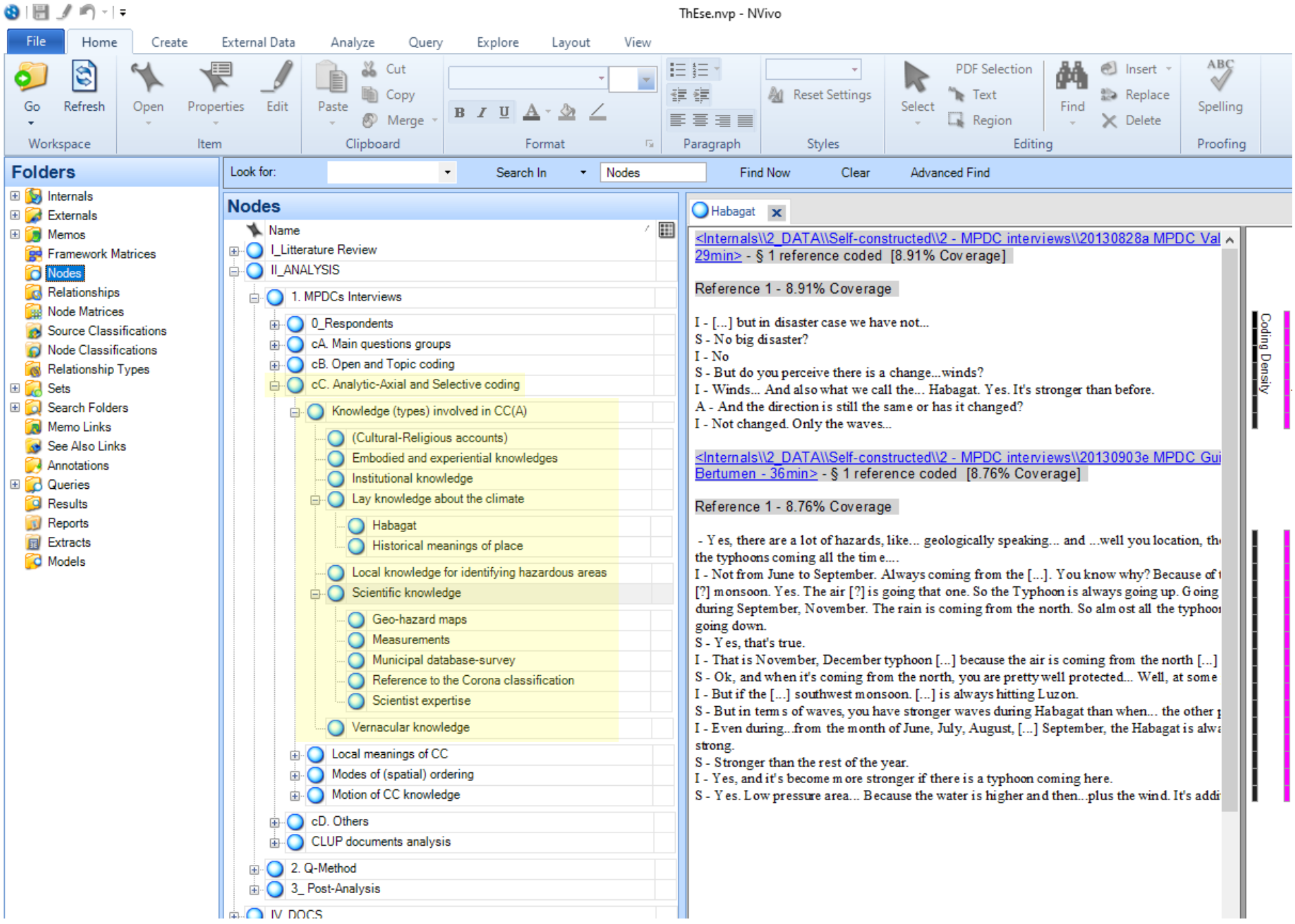


Sample of 'critical' barangays (n=84) reported by planning officers during face-to-face interviews

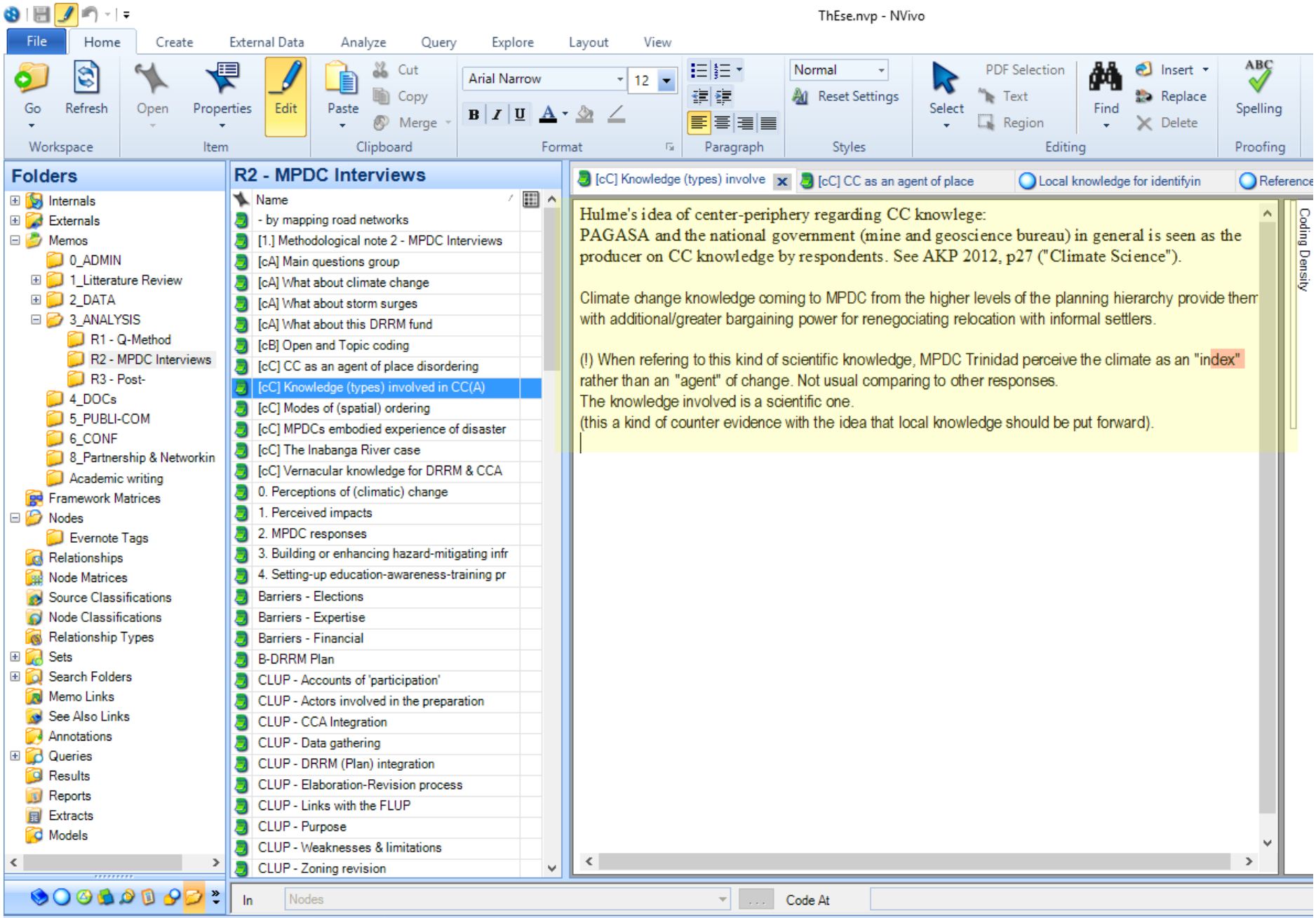
Nvivo – Coding (Analytic/Axial)



Nvivo – Coding (Analytic-Axial)



Nvivo – Building memos



‘Qualification’ of the ways municipal planners relate to climate change

Reality	Problem	Agenda
“Eratic weather” (unseasonal rains, high-heat days	Increase of disaster risks (floods, landslides)	Part of their mandate to integrate CCA
“Abnormal tides” (coastal/estuarine areas)	Negative impacts on livelihoods (farmers, fishers)	Training attendance
Unexpected extreme events (heavier rainfalls, stronger *Habagat* [monsoon] winds, bigger waves/ storm sruges)	Land use change (e.g sea salt intrusions > conversion of lands from ricefields to mangrove plantations)	Integration of DRRM plans and geo-hazard maps into land use plans

Building planning significance through scientific and non-scientific knowledge

Scientific

CLUPs and geo-hazard maps as technical planning tools defining "climate risk free" areas for future developments

Yet, many raise the issues: coarse resolution, « general description », not accessible for local communities

> Technical, scientific knowledge of climate-related risks orienting (long term) planning practices

Non-scientific

Personnal experience with "disaster prone areas" (residential flood)
Professional experience (rescue or disaster relief operations)
Context-specific understanding of their local exposure and vulnerability (lagoon, double reef barrier protection)

> Local, grounded knowledge of what climate change 'feels like' and involves in terms of (short term) responses

Notion of 'experiential knowledge'

Key quote

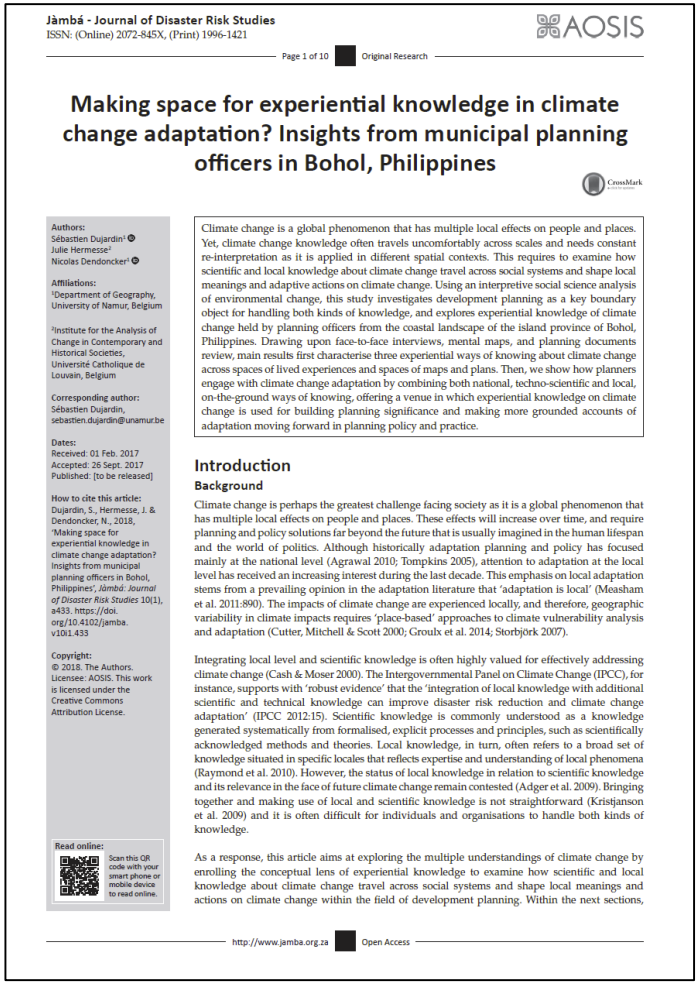
"During signal number 2, about 36 hours before the typhoon arrives, I will start contacting all the barangay officials through our communication systems and instruct them to cut all the leaves of the coconut palms within the vicinity of houses" [...] [As] the tree can fall down because of the wind, if you cut those palms you lessen the stress on the branches. [People] have been doing that as early as... A long time ago. It's been tested already. So it's just our way of informing them. This mechanism system is a way of mitigating. Simplest way."

'Experiential knowledge'

= A combination of both scientific and non-scientific ways of knowing about whether extremes allowing for building planning significance in a local planning context

Key insights

- CC has multiple meanings within municipal planning contexts
- Not only a physical transformation, but also a cultural object: i.e. reality, problem, agenda
- The notion of 'experiential knowledge' = useful analytical lens for bridging both scientific and non-scientific ways of knowing about CC
- Beyond the (national) scientific VS (local) non-scientific binary opposition
- Allows shifting from a 'top-down VS bottom-up' approach to CC knowledge towards a multi-scale, horizontal approach to CC knowledge



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AOSIS
Page 1 of 10 Original Research

Making space for experiential knowledge in climate change adaptation? Insights from municipal planning officers in Bohol, Philippines

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Climate change is a global phenomenon that has multiple local effects on people and places. Yet, climate change knowledge often travels uncomfortably across scales and needs constant re-interpretation as it is applied in different spatial contexts. This requires to examine how scientific and local knowledge about climate change travel across social systems and shape local meanings and adaptive actions on climate change. Using an interpretive social science analysis of environmental change, this study investigates development planning as a key boundary object for handling both kinds of knowledge, and explores experiential knowledge of climate change held by planning officers from the coastal landscape of the island province of Bohol, Philippines. Drawing upon face-to-face interviews, mental maps, and planning documents review, main results first characterise three experiential ways of knowing about climate change across spaces of lived experiences and spaces of maps and plans. Then, we show how planners engage with climate change adaptation by combining both national, techno-scientific and local, on-the-ground ways of knowing, offering a venue in which experiential knowledge on climate change is used for building planning significance and making more grounded accounts of adaptation moving forward in planning policy and practice.

Introduction

Background

Climate change is perhaps the greatest challenge facing society as it is a global phenomenon that has multiple local effects on people and places. These effects will increase over time, and require planning and policy solutions far beyond the future that is usually imagined in the human lifespan and the world of politics. Although historically adaptation planning and policy has focused mainly at the national level (Agrawal 2010; Tompkins 2005), attention to adaptation at the local level has received an increasing interest during the last decade. This emphasis on local adaptation stems from a prevailing opinion in the adaptation literature that 'adaptation is local' (Measham et al. 2011:890). The impacts of climate change are experienced locally, and therefore, geographic variability in climate impacts requires 'place-based' approaches to climate vulnerability analysis and adaptation (Cutter, Mitchell & Scott 2000; Groulx et al. 2014; Storbjörk 2007).

Integrating local level and scientific knowledge is often highly valued for effectively addressing climate change (Cash & Moser 2000). The Intergovernmental Panel on Climate Change (IPCC), for instance, supports with 'robust evidence' that the 'integration of local knowledge with additional scientific and technical knowledge can improve disaster risk reduction and climate change adaptation' (IPCC 2012:15). Scientific knowledge is commonly understood as a knowledge generated systematically from formalised, explicit processes and principles, such as scientifically acknowledged methods and theories. Local knowledge, in turn, often refers to a broad set of knowledge situated in specific locales that reflects expertise and understanding of local phenomena (Raymond et al. 2010). However, the status of local knowledge in relation to scientific knowledge and its relevance in the face of future climate change remain contested (Adger et al. 2009). Bringing together and making use of local and scientific knowledge is not straightforward (Kristjanson et al. 2009) and it is often difficult for individuals and organisations to handle both kinds of knowledge.

As a response, this article aims at exploring the multiple understandings of climate change by enrolling the conceptual lens of experiential knowledge to examine how scientific and local knowledge about climate change travel across social systems and shape local meanings and actions on climate change within the field of development planning. Within the next sections,

Read online: Scan this QR code with your smart phone or mobile device to read online.

https://doi.org/10.4102/jamba.v10i1.433

NVivo as a tool for qualitative research

Pros

- Good at centralizing research material (notes, interview records, pdfs, questionnaires, pictures)
- Facilitates the comparison of information, in-depth (re-) interpretations
- Advanced queries (case based)

Cons

- Bias of focusing on the 'technicalities', categorization, formalization of text information/extracts.
- Easy to duplicate nodes > sometimes difficult to find where to stop topic/axial/selective coding
- Sides notes (memos) must remain central in the process of theory building.

Think before investigating

Approach	Quantitative	Qualitative
Research problem	Well defined, unambiguous	Complex, fuzzy, ambiguous
Questioning	Closed questions	Open questions
Objective	Identify specific categories before the research starts	Identify categories that evolve throughout the research process
Research model	Relationship clearly defined between a limited number of categories. Look for simplicity	Many interrelations between categories. Capturing complexity.
Intend	Mastering generalisation and distribution issues	Stimulating a thorough appraisal of a phenomenon
Strengths	Representativity Reproducibility Standardization	Flexibility Relevance Adequacy
Weaknesses	Causality Coarse resolution	Singularity Contextual results

Thank you/ Salamat!

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