**Overall ReadMe file for entire (Re)Connect the Nexus project**

**Introduction**

This project explored young Brazilians' (aged 10-24) experiences of, and learning about, the food-water-energy nexus in Brazil. It collected a range of quantitative and qualitative data about how young people saw food, water and energy in their everyday lives: how they accessed these resources; what they knew about them; how they learned about them; and what 'threats' there were to their accessing them. The project also explored the relationships between these three resources, as part of the food-water-energy nexus. It therefore explored choices and 'trade-offs' that young people had to make between these resources. The data collection involved a very large, detailed survey with young people, in-depth qualitative research with young people, in-depth qualitative research with key professionals, and a global video competition.

Data collection was with three key groups: young people, aged 10-24, in the MRPSRBSSNS; key professionals working in the MRPSRBSSNS, Sao Paulo State, and Brazil more widely; a range of young people who took part in the global video competition. Data collection was in four work packages, which are detailed in the sections below (the numbered list refers to the numbered sections in this document, each of which starts on a new page). Note that these sections are copies of the ReadMe files for each individual package of data in this dataset.

1. Stakeholder interviews (in folder labelled **Key professional interviews**): 64 participants took part in detailed (up to three hours in length), semi-structured key stakeholder interviews. Interviewees were sampled using purposive and snowballing techniques, and represented a range of professions linked to the project, including: municipal, state and federal-level government actors; government, academic and independent research agencies; environmental and consumer rights NGOs; energy and water distribution companies (both private and state-private partnerships); family and small-scale commercial WEF producers; multi-stakeholder community organisations; and, environmental education practitioners
2. Survey (in folder labelled **Final SURVEY data**): We designed a comprehensive survey to understand young people’s relationships with food-water-energy. The survey was launched in April 2017 and ran until May 2018. We collected 3,705 responses from young people in the case study region, with a purposive sampling strategy to ensure representative samples for each of the sub-regions of the MRPSRBSSNS. This is one of the largest surveys ever undertaken, anywhere, with young people; it is also one of the largest and most comprehensive datasets about resources and everyday life ever compiled.
3. Qualitative methodologies with young people (in folders labelled **Interview 1** and **Interview 2**): 48 young people, aged 10-24, participated in this part of the project. Young people took part in several activities, all of which built towards an understanding of how food, water and energy (and more) intersected in their everyday lives. The following is a breakdown of the activities: i) semi-structured interview 1: an introductory interview focusing on ‘My life, food-water-energy’; ii) use of a bespoke mobile app (data not deposited on ReShare because of confidentiality issues), which asked young people to take pictures of food, water and energy in their everyday lives and comment on the pictures in the app, over the course of a week; iii) a mobility mapping exercise (via the app), which traced young people's movements during the week they used the app (again, not deposited on ReShare because of confidentiality issues; iv) a visual web, where young people pasted images from the app and discussed their nexuses (again cannot be deposited on ReShare because they contain confidential information that cannot be redacted withouth the webs losing their meaning). Data were transcribed and translated and data analysis is ongoing using NVivo.
4. Video competition (in separate document labelled **Global Video Competition**): Separately, we ran a global video competition asking young people from around the world to submit videos about food, water and energy in their everyday lives. Ten entries for the video competition were received from Brazil, India, Singapore and UK. The winning entry was Amigos da Natureza Salvando Planeta – based on 800 likes. The videos were watched in Brazil, UK, India, Hungary and Kazakhstan – and watched in total 5,780 times. The data deposited in ReShare contains a document with a link to the videos and further information about the competition.

1. ReadMe file: Interviews with Key Professionals

# Aims of this strand of work

As detailed in the project overview, this strand of work contributes directly to the third objective of the RCTN project, ‘to critically evaluate the landscape of Education for Sustainability (EfS) in Brazil, through the lens of the nexus’.

# Main activities

The main methods for this strand of research were interviews (face to face and virtual) and focus groups. Catherine Walker, University of Leicester’s post-doc researcher, developed a thematic, semi-structured interview schedule (available in this data folder) for these activities under the supervision of Benjamin Coles, Lecturer in Human Geography at the University of Leicester. Catherine and Ben were supported by other RCTN team members in both countries and the project advisory committee, who in particular provided detailed feedback on the proposed interview schedules before any interview was undertaken.

Catherine spent from November 2016-January 2017 researching organisations and individuals to contact, making initial email contact with potential participants and preparing for field research. During this time, this strand of the research received ethical approval from the University of Leicester, in addition to the ethical approval for the RCTN project as a whole.

Catherine spent between January to April 2017 in Brazil carrying out interviews and focus groups. In total, Catherine undertook individual or group interviews (either face to face or via Skype/phone) with 63 adult professionals, 62 of whom gave their consent for their data to be included in the study[[1]](#footnote-1). One more key professional responded to interview questions via email. Thus the total number of participants was 63, and the target figure of 50 key professional participants was surpassed. Catherine was supported by a number of RCTN members in making contact with and undertaking interviews. In particular, Ben Coles, Paulo Valladares, Jose Antonio Perrella and Mateus Vilanova co-interviewed with Catherine in a number of interviews. Most interviews were undertaken in Portuguese, which Catherine speaks fluently as a second language. Interviews were audio recorded, transcribed and translated into English by a Brazilian transcription and translation company used regularly by the Brazilian team.

# Characteristics of stakeholders interviewed

Overall, Catherine carried out interviews or focus groups with 63 adult professionals, 62 of whom gave their consent for their data to be included in the stud[[2]](#footnote-2). Catherine also received responses by email from another professional. Thus, the total number of key professional participants who participated in the study and whose data can be used as such was **63.** Eleven of these participants took part in two focus groups held at a Federal Government research agency. The remaining fifty two participants were interviewed individually or in pairs (and in one case in a group of three), either face to face, by phone, Skype or email. These participants represented the following sectors:

* Municipal, state and federal-level government, including ministries of education, environment and rural development;
* Government, academic and independent research agencies;
* Civil defence;
* Environmental and consumer rights NGOs;
* Family and small-scale commercial farming;
* Industries, including sugar and ethanol manufacturing, cosmetics manufacturing, pharmaceuticals and hydroelectric energy generation and industry alliances;
* Energy and water distribution companies (both private and state-private partnerships);
* Formal and informal education (including educators and advisors for state and municipal level government);
* Multi-stakeholder water basin committees.

A spreadsheet contains as many details as possible about the interviewees and the interviews, but both the spreadsheet and portions of the interview transcripts have been anonymised.

# Summary of files in this folder

This folder contains the following files.

* An Excel spreadsheet containing details of the interviews and interviewees (classified by sector to protect respondents’ identities). Note that in the ‘Details of interview’ column, reference to a), b) (etc.) refers to the interviews in the column immediately to the right of that cell (which are divided by a ‘/’). File name ‘2.RCTN\_Key\_Professional\_Interviews\_Data\_List’.
* A list of interview questions used in the interviews and focus groups. File name ‘3.Key\_stakeholder\_interview\_questions\_English\_and\_Portuguese’.
* 40 files containing the anonymised transcripts of the interviews and focus groups with key professionals. File names correspond with the interviewee codes in the Excel spreadsheet.

**2. ReadME: archived survey files**

This archive contains files containing data and analysis from project ES/N013190/1 (*(Re)Connect the Nexus: Young Brazilians' experiences of and learning about food-water-energy*).

The following files have been archived:

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| **File name** | **Description** |
| RCTNsurvey\_design\_sample.docx | This file provides background information about the design and sampling approach for the survey which generated the data in files RCTNsurvey\_data\_Portuguese.xlsx and RCTNsurvey\_data\_English.xlsx.The file also summarises the achieved sample by age, gender and municipality of participants. |
| RCTNsurvey\_PIS\_consent\_Portuguese.docx | Portuguese language project information sheet and consent form for survey participants. |
| RCTNsurvey\_PIS\_consent\_English.docx | English language translation of the project information sheet and consent form for survey participants. |
| RCTNsurvey\_questions\_Portuguese.docx | This file lists the questions asked in the Portuguese language version of the survey. Responses to these questions are collated in the datasets RCTNsurvey\_data\_Portuguese.xlsx and RCTNsurvey\_data\_English.xlsx |
| RCTNsurvey\_questions\_English.docx | English language translation of questions asked in the multi-format survey. Responses to these questions are collated in the datasets RCTNsurvey\_data\_Portuguese.xlsx and RCTNsurvey\_data\_English.xlsx |
| RCTNsurvey\_data\_Portuguese.xlsx | Excel file containing a Portuguese language dataset generated by a questionnaire survey of young people aged 0-24 in the Metropolitan Region of ParaÍba do Sul River Basin and São Paulo State North Shore, southern Brazil, in 2017-18. The dataset comprises 3,705 cases (survey responses) and 339 variables. Numbering of variables is consistent with RCTNsurvey\_questions\_Portuguese.docx and RCTNsurvey\_questions\_English.docx. Variable labels and values are embedded in the dataset. The following variables are redacted as >10% of responses contain personally identifying information: 9a, 21a, 21b, 30a, 30b, 36a, 36b. |
| RCTNsurvey\_data\_English.xlsx | Excel file containing an English language translation of the dataset generated by a questionnaire survey of young people aged 0-24 in the Metropolitan Region of ParaÍba do Sul River Basin and São Paulo State North Shore, southern Brazil, in 2017-18. The dataset comprises 3,705 cases (survey responses) and 339 variables. Numbering of variables is consistent with RCTNsurvey\_questions\_Portuguese.docx and RCTNsurvey\_questions\_English.docx. Variable labels and values are embedded in the dataset. The following variables are redacted as >10% of responses contain personally identifying information: 9a, 21a, 21b, 30a, 30b, 36a, 36b. |

3. ReadMe file: Interviews with Young People

**Note that this ReadMe file is the same for the ‘Interview 1 with Young People’ and ‘Interview 2 with Young People’ data folders.**

# Aims of this strand of work

As detailed in the project overview, this strand of work contributes directly to the first objective of the RCTN project – to explore young people’s experiences of and learning about the food-water-energy nexus in Brazil.

# Main activities

The main methods for this strand of research were interviews (face to face), an app, a mapping exercise and a visual web. Cristiana Zara, University of Birminghan’s post-doc researcher, developed a thematic, semi-structured interview schedule (available in this data folder) for these activities under the supervision of Peter Kraftl and Sophie Hadfield-Hill. Cristiana, Peter and Sophie were supported by other RCTN team members in both countries and the project advisory committee, who in particular provided detailed feedback on the proposed interview schedules before any interview was undertaken.

Cristiana spent from November 2016-August 2017 researching with young people. During this time, this strand of the research received ethical approval from the University of Birmingham, in addition to the ethical approval for the RCTN project as a whole.

In total, Cristiana undertook individual or paired interviews (face-to-face) with 48 young people. Cristiana was supported by a number of RCTN members in making contact with and undertaking interviews. In particular, Rachel Nunes Leal co-interviewed with Cristiana in a number of interviews or undertook interviews herself. Most interviews were undertaken in Portuguese, which Cristiana speaks fairly fluently as a third language, although some were conducted in English. Interviews were audio recorded, transcribed and translated into English by a Brazilian transcription and translation company used regularly by the Brazilian team.

# Characteristics of stakeholders interviewed

Cristiana recruited the 48 young people, who were aged 10-24, from a range of settings across the case study region. Predominantly, young people were recruited from schools, and many (but not all) also took part in the survey component of the project. Other young people were recruited through youth groups, further and higher education institutions, and workplaces. Most young people consented to take part in the full range of activities: an initial interview (interview 1); the app-based activity; a mapping exercise; a visual web exercise; a follow-up interview (interview 2), which included reflections on the mapping exercise and the visual webs.

A spreadsheet contains as many details as possible about the interviewees and the interviews, but both the spreadsheet and portions of the interview transcripts have been anonymised.

# Summary of files in this folder

Two **important notes** accompany the data deposited in ReShare:

1. Owing to the impossibility of anonymising the mapping exercise and visual webs (which were intensely personal in nature and showed data about young people’s homes, schools and workplaces), we cannot deposit these data on ReShare. We have not taken this decision lightly but this is the only way that we can conform to our project’s ethical principles.
2. A very small number of interviews cannot be deposited on ReShare because it was not possible to anonymise them without rendering them totally meaningless to readers external to the project. These interviews are clearly marked in the final column on the Excel spreadsheets.

There are two data folders for the interviews with young people (for Interview 1 and Interview 2).

The folder for **Interview 1** contains the following files:

* An Excel spreadsheet containing details of the interviews and interviewees. The final column indicates whether the transcript has been deposited on ReShare. File name ‘2.YP\_Interview\_1\_data\_list’.
* A list of interview questions used in Interview 1. File name ‘4.Interview 1 FINAL\_CZ’.
* 60 files containing the anonymised transcripts of the interviews with young people. File names correspond with the interview codes in the Excel spreadsheet (column 1).

The folder for **Interview 2** contains the following files:

* An Excel spreadsheet containing details of the interviews and interviewees. The final column indicates whether the transcript has been deposited on ReShare. File name ‘3.YP\_Interview\_1\_data\_list’.
* A list of interview questions used in Interview 1. File name ‘5.Interview 1 FINAL\_CZ’.
* 56 files containing the anonymised transcripts of the interviews with young people. File names correspond with the interview codes in the Excel spreadsheet (column 1).

**4. Global Video Competition**

The aim of the Global Video competition was three fold: i) to encourage cross-cultural dialogue / learning about the nexus; ii) to raise the profile of the project, and iii) to raise the profile of the significance about the nexus, internationally.

Young people were asked to respond to the statement *‘food, water and energy in my everyday life.’*

We invited children and young people from around the world to submit a short video on their relationships with and understanding of the diverse ways in which food, water and energy is produced, consumed and experienced.

10 videos were submitted.

Videos can be accessed from the following YouTube link: [https://www.youtube.com/channel/UC\_D2l8t-U8bEPXlvDkvapZQ](https://owa03.bham.ac.uk/owa/redir.aspx?C=X1UpcBBGT6DvymEq9d38tyKZvN7d2bsxhOqi8Jc5F9UnVaxVH1rWCA..&URL=https%3a%2f%2fwww.youtube.com%2fchannel%2fUC_D2l8t-U8bEPXlvDkvapZQ)

**Competition rules**

Other information which was made available to the participants:

* The Nexus Challenge was open to any school, college, university or youth organisation.
* A representative from each organisation submitted the entries on behalf of young people (those under 18)
* Entries were welcome from those under the age of 25
* Videos had to be under 3 minutes in length
* Entries were welcome from individuals or teams of up to four people
* The submitting organisation was responsible for obtaining permission of all young people who appeared in the video and for this appearing online

**Judging and winning entries**

There were two prizes available, one based on the highest number of likes on You Tube by a given date and the other was judged by members of the Re-Connect the Nexus research project.

* First Prize: The maze of food waste (Judged by the (Re)Connect the Nexus Advisory Panel). The prize was £300 (Amazon vouchers) for the submitting organisation and £150 (Amazon vouchers) for the winning entry.
* Second Prize: Amigos da Natureza Salvando Planeta (which received 800 likes through the public vote). The prize is £150 (Amazon vouchers) for the submitting organisation and £100 (Amazon vouchers) for the winning entry.

The videos have been watched in Brazil, UK, India, Hungary and Kazakhstan – and watched 6,695 times (as of 15th November, 2018).

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| **NAME OF VIDEO** | **PARTICIPANTS**  | **NUMBER OF VIEWS / LIKES (AT COMPETITION CLOSING DATE)** |
| Amigos da Natureza Salvando Planeta                     | 4 young participants (Born: 2006 / 2007) | 3,175 views / 800 likes  |
| The maze of food waste                                                | 4 young participants (Born: 2001) | 907 views / 226 likes  |
| Save our village                                                                  | 2 young participants (Born: 1992 / 1995) | 362 views / 64 likes  |
| Food, Water, Energy                                                       | 1 young participant (Born: 2005) | 457 views / 54 likes  |
| Where do our resources originate                             | 4 young participants (Born: 2001 / 2002) | 220 views / 25 likes  |
| Wasted away                                                                      | 4 young participants (Born: 2002) | 273 views / 19 likes |
| Waste not want not                                                         | 4 young participants (Born: 2001 / 2002) | 81 views / 7 likes |
| Wasteful Josh                                                                     | 4 young participants (Born: 2002) | 157 views / 5 likes |
| Understanding consumption in everyday life       | 2 young participants (Born: 2002) | 98 views / 5 likes |
| Stop Wasting Stop motion                                            | 3 young participants (Born: 2001/2002) | 50 views / 2 likes  |

1. One of the sixty three professionals, who participated in a focus group, did not send back a consent form to Catherine despite repeated requests. Therefore, we are unable to include this participants’ inputs in the research. The transcript for this activity has been amended accordingly. In addition, one of the two people who sent email responses to Catherine also failed to send back a consent form, meaning that we are unable to use these as project data. [↑](#footnote-ref-1)
2. One of the sixty three professionals, who participated in a focus group, did not send back a consent form to Catherine despite repeated requests. Therefore, we are unable to include this participants’ inputs in the research. The transcript for this activity has been amended accordingly. In addition, one of the two people who sent email responses to Catherine also failed to send back a consent form, meaning that we are unable to use these as project data. [↑](#footnote-ref-2)