Results of the Health and Sanitation Research Program of Funasa 2000 to 2017

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Sanitation Information and Technology Coordination (Codet/Cgcot/Densp/Funasa)

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National Health Foundation (Funasa)
Funasa’s Research Program

Direct demands

Funasa Scientific & Technological Development Program – 1999
• National Center for Epidemiology (Cenepi)
• Department of Indigenous Health (Desai)
• Department of Public Health Engineering (Densp)

Health and Sanitation Research Program (Densp)
• Technical solutions to be incorporated into Funasa's actions
• Rural areas and municipalities with up to 50,000 inhabitants
• Sustainable actions
Research process

- Needs
- Public Notices 2000-01-03-07-11
  - Projects
  - Selection
  - Contracts
- Results
  - Supervision & Evaluation
    - Committee
    - Secretariat
    - Consultants
    - Supervisors
- Research
## Health and Sanitation Research Program

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Water supply system</td>
<td>4</td>
<td>6</td>
<td>10</td>
<td>5</td>
<td>8</td>
<td>33</td>
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<td>Sewage system</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>2</td>
<td>17</td>
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<tr>
<td>Solid waste management</td>
<td>-</td>
<td>4</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>07</td>
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<tr>
<td>Management in public health engineering</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>19</td>
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<tr>
<td>Household sanitary improvements</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>04</td>
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<tr>
<td>Sanitation in indigenous areas</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>03</td>
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<td>Housing improvements for Chagas disease control</td>
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<td>-</td>
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<td><strong>TOTAL</strong></td>
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<td><strong>18</strong></td>
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<td><strong>17</strong></td>
<td><strong>84</strong></td>
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**Total**: 100,00%

### 5 Public notices

- Water supply system: 42%
- Sewage system: 22%
- Management: 19%
- Solid waste: 10%
- House sanitary improvements: 3%
- Indigenous area: 3%
- Housing improvement: 1%

Legend:
- Water supply system: Blue
- Sewage system: Red
- Management: Green
- Solid waste: Purple
- House sanitary improvements: Orange
- Indigenous area: Turquoise
- Housing improvement: Yellow
# Health and Sanitation Research Program

## Results

<table>
<thead>
<tr>
<th>Final Reports and Research books (executive summaries)</th>
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<tbody>
<tr>
<td>Apps, softwares, database</td>
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<tr>
<td>Books, booklets, manuals</td>
</tr>
<tr>
<td>Courses, seminars and workshops</td>
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<tr>
<td>Theses and dissertations</td>
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<tr>
<td>Sanitary technology</td>
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</tbody>
</table>
Some research examples
Perception and water uses in small communities: an Anthropological Perspective

Carla Costa Teixeira – UNB/DF

Maracaçumé (MA)

Ganjeiro (CE)
Action research in the district of Iauaretê of the municipality São Gabriel da Cachoeira / Amazon State: proposal of sanitary improvements and habits

Maria Cecília Focesi Pelicioni – USP/SP
Environmental Sanitation, Sustainability and Permaculture in Rural Settlements: some practices and experiences

Bernardo Teixeira – UFSCar/SP

Schematic prismatic septic tank system with banana trees circle

Water pump driven by wind energy

Rain water cistern

Composting
Water production through natural solar distillation

Maurício Luiz Sens – UFSC/SC

Pyramid-shaped solar distiller with glass cover
Groundwater partial fluorine removal

Adilson Ben da Costa – UNISC/RS
Horizontal subsurface wetlands - planted and not planted

Marcos von Sperling – UFMG/MG
Social participation and mobilization: methodology in educational actions for environmental sanitation for small municipalities

Sandra Maria Furiam Dias – UEFS/BA
Slow filtration system with backwash

Maurício Luiz Sens – UFSC/SC
Methodological tools to stimulate the formation of public consortia focused on integrated management of sanitation services

Ana Lúcia Nogueira de Paiva Britto – UFRJ/RJ
Methodologies for strengthening social control in sanitation management

Pedro Roberto Jacobi – USP/SP

Materials selective collection: management models with and without wastepickers, advantages and disadvantages from a sustainability perspective

Helena Ribeiro – USP/SP
Comparative evaluation of sanitation services management in different institutional models.

Leo Heller – UFMG/MG

Alternatives for safe sewage sludge management from decentralized sanitation

Luiz Sérgio Philippi – UFSC/SC
Proposals for improvements in the solid waste management and disposal system for small communities

Viviana Maria Zanta – UFBA/BA

• Solid waste and the community health

• Composting

• Waste and health

• Dona Maria’s recipes
Optimization of household water use technologies

Lúcia Helena Oliveira – UFG/GO

Impact of sanitation actions on the health of the populations of the indigenous lands of Ivaí and Faxinal in the State of Paraná

Max Jean de Ornelas Toledo – UEM/PR
• Public Health Engineering Research book

• Research Reports (Funasa’s website only)
Number of researches by Brazil’s region

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www.funasa.gov.br

Biblioteca eletrônica/publicações/estudos e pesquisas

codet.pesquisa@funasa.gov.br
Thank you

Filomena Kotaka