

# Amazônia alagável e saneamento: desafios e soluções

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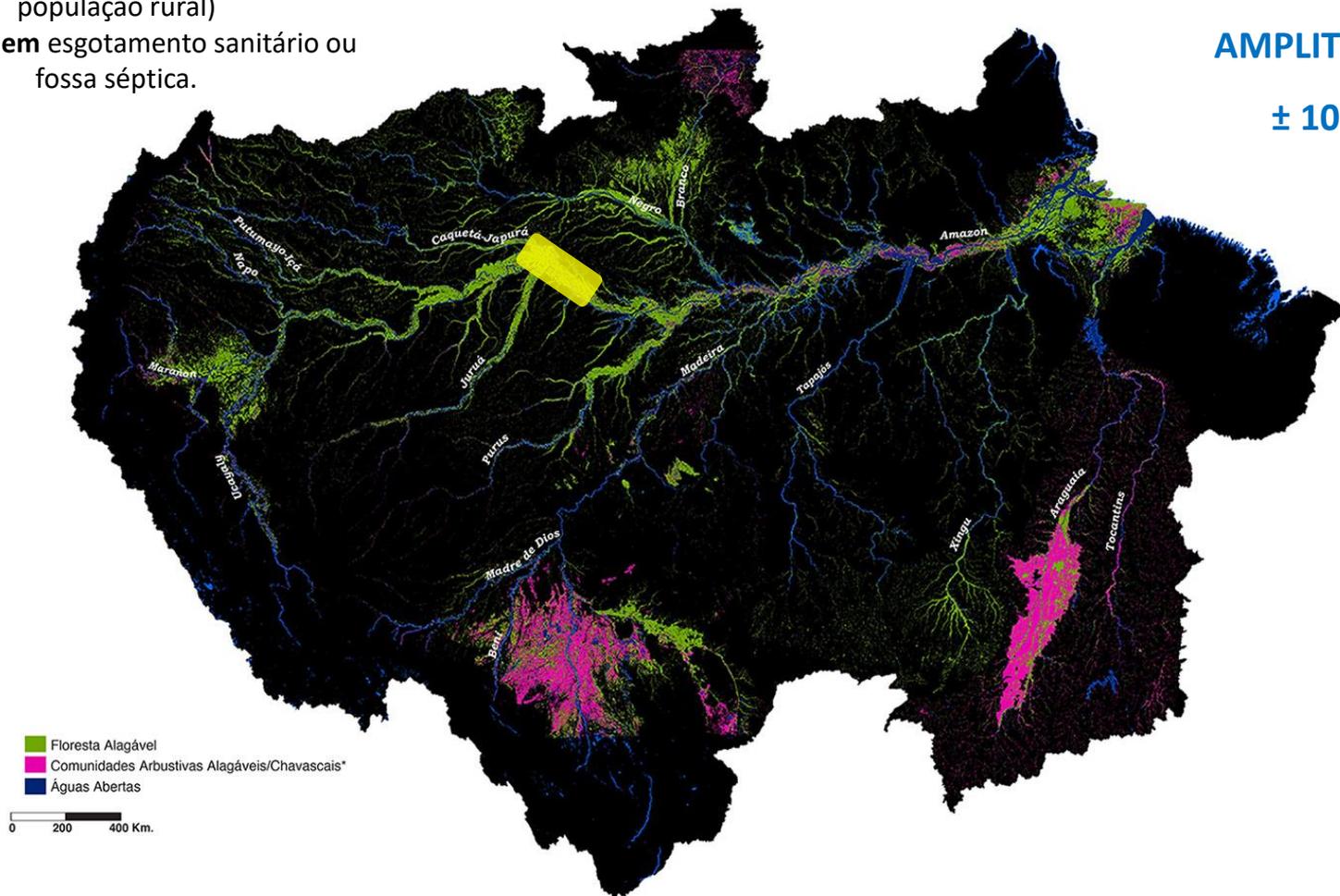


Norte Rural: **3,8 milhões** (92% da população rural)

**não possuem** esgotamento sanitário ou fossa séptica.

**AMPLITUDE ANUAL:**

**± 10 METROS**



# QUANDO A CHEIA CHEGA...



POR QUE MORAR AQUI?

# DESAFIOS PARA O SANEAMENTO

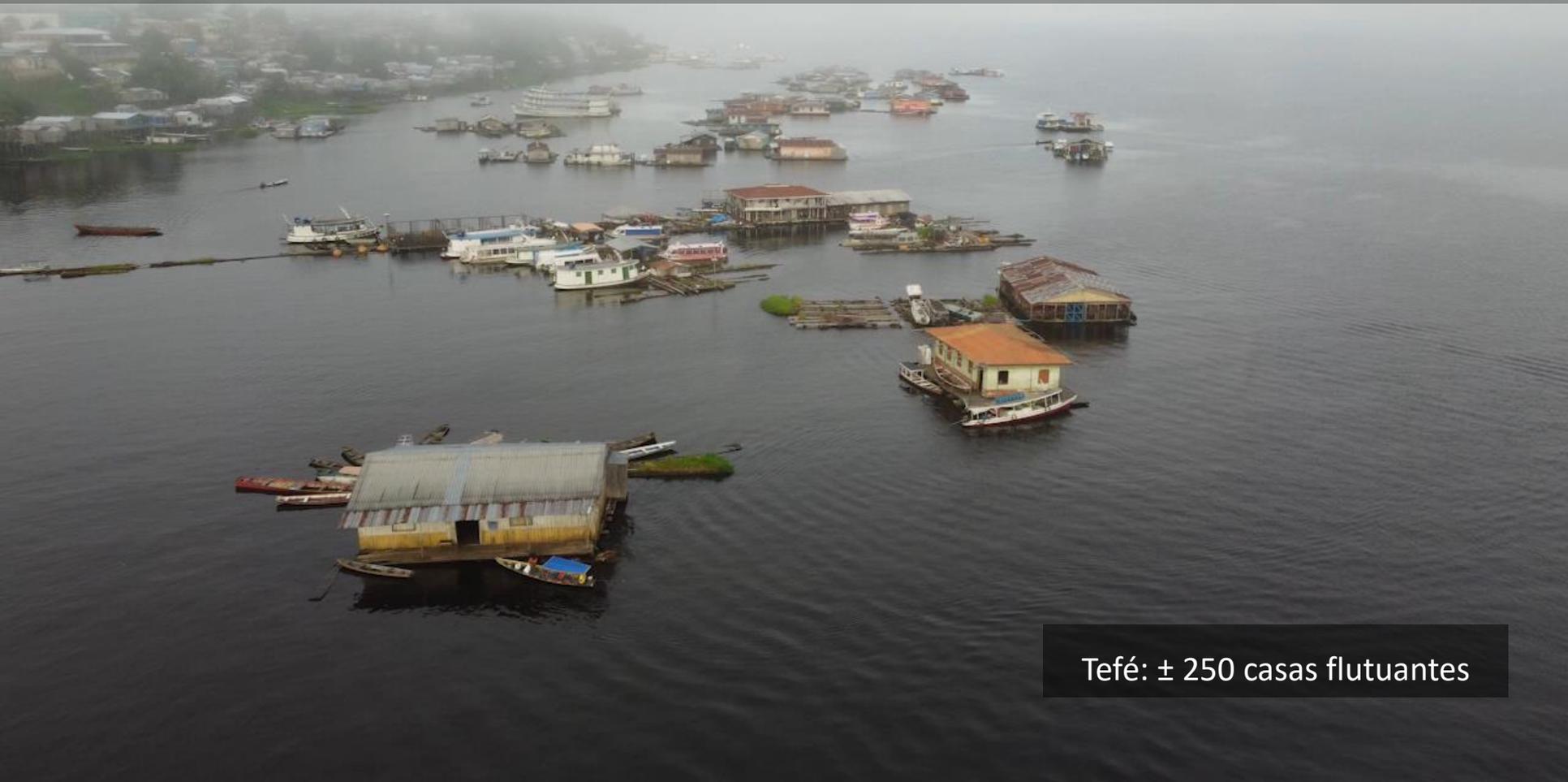


# “ TERRAS CAÍDAS ”



Rio Solimões

# DEMANDA DE SOLUÇÕES DE ÁGUA E ESGOTO PARA RESIDÊNCIAS FLUTUANTES



Tefé: ± 250 casas flutuantes



SECA



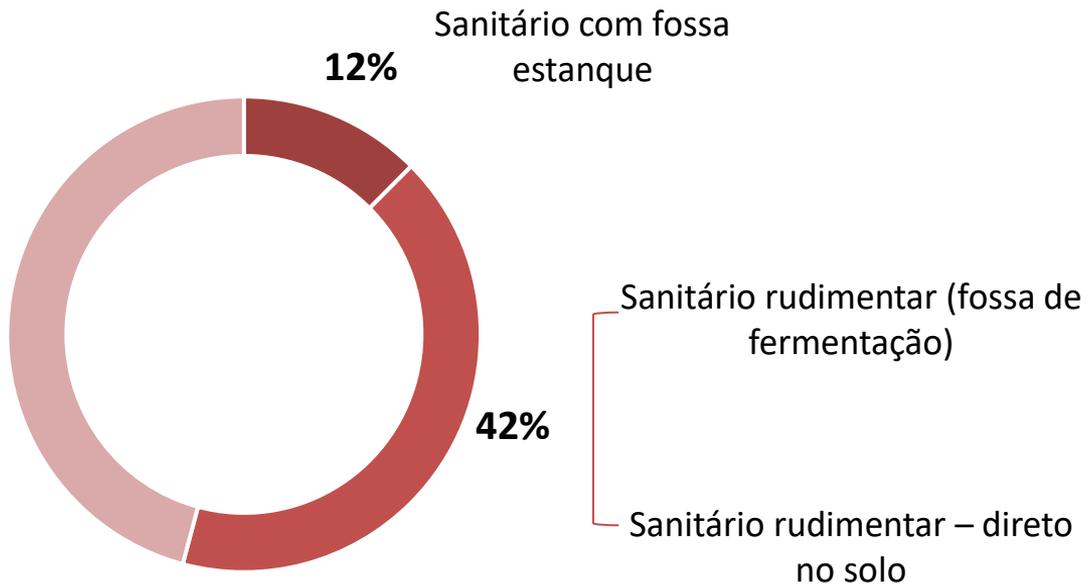
CHEIA

até 5 meses/ano alagadas





**46%**  
**Defecação a céu  
aberto**  
*“pau-da-gata”*



# RENDA FAMILIAR

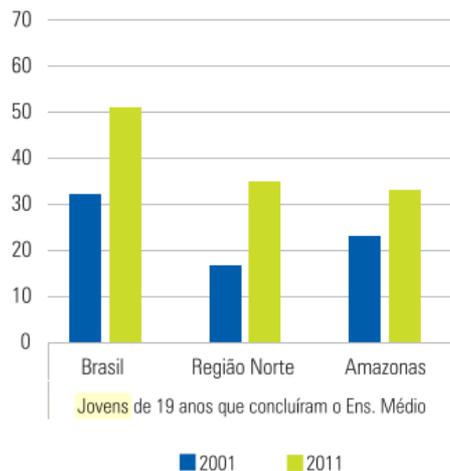
Table 3 - Annual and monthly income, *per capita* household income in the three areas and in the total sample.

Area	Household average annual income (R\$)	Household average <i>per capita</i> monthly income (R\$)	Household average per capita monthly income (without benefits)
Total sample (n = 920)	9.047 ( $\pm$ 6757)	148 ( $\pm$ 140)	80 ( $\pm$ 102)

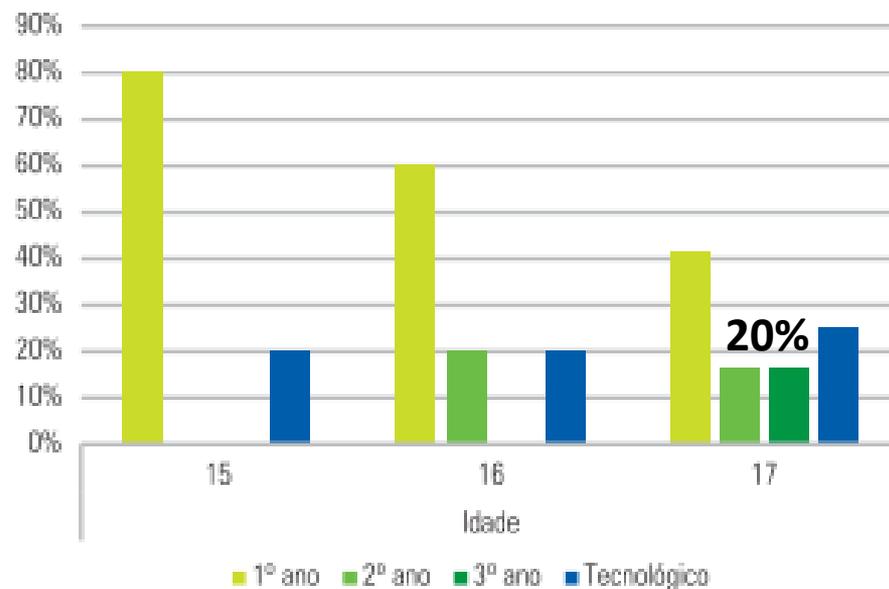
**R\$ 148/pessoa/mês**



# Escolaridade Jovem



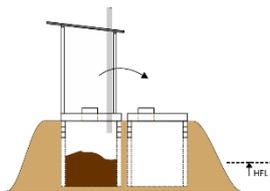
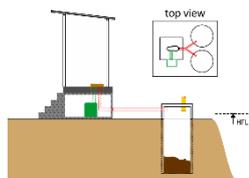
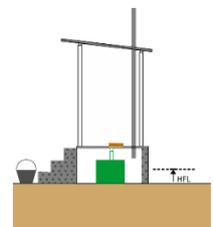
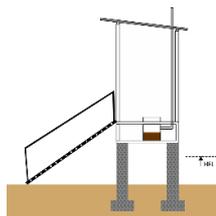
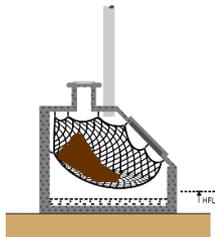
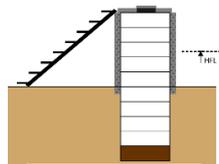
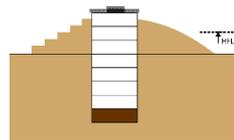
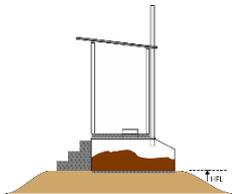
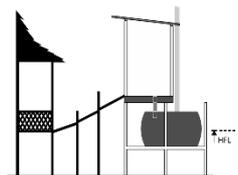
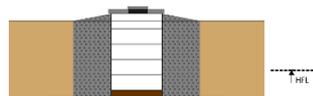
## A Área Uarini



Onde o saneamento entra nisso tudo?

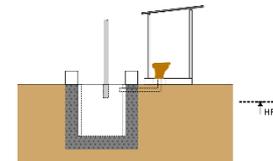
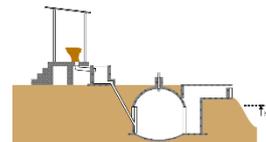
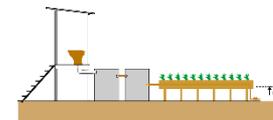
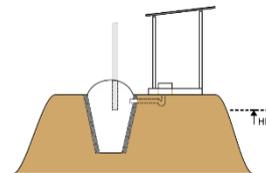
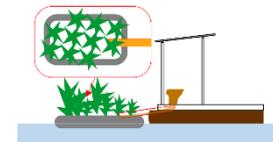
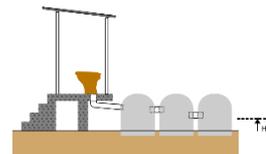
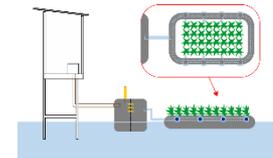
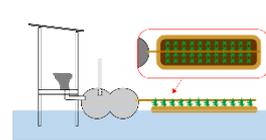
(água e esgoto)

## Soluções secas



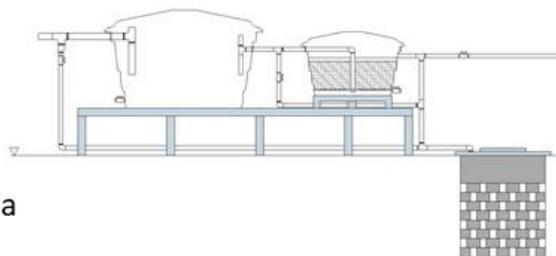
## 21 Soluções

## Soluções hídricas





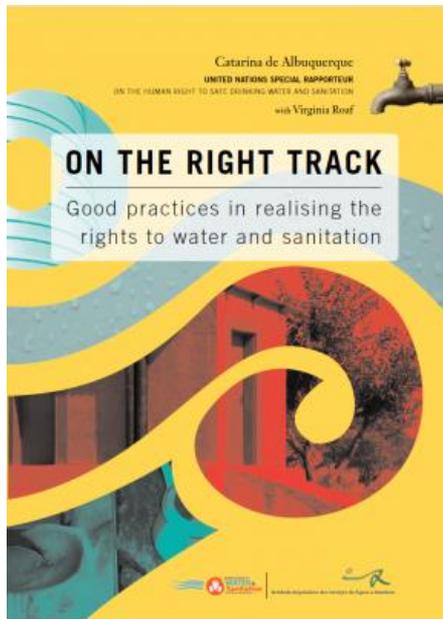
- 1: Tanque séptico
- 2: Filtro anaeróbio
- 3: Sumidouro
- 4: Sistema de desvio ('by-pass').
- 5: Base elevada para proteger o sistema da água do rio durante as cheias.



## Diferencial do sistema: Semi coletivo



Então a engenharia resolve tudo?



“

*Toda ação que tem impacto no acesso das pessoas à água e esgotamento sanitário deve proporcionar oportunidades significativas de engajamento. Usuários (...) devem ter a oportunidade de participar em tomadas de decisão ... ”*

CATARINA DE ALBUQUERQUE

processos participativos → apropriação das tecnologias de saneamento

## Como se dá a participação em campo?



- Reuniões (muitas)
- Decisões diversas
- Obras de instalação
- Alimentação...
- Contra partida

## Participação de muitos moradores



Incluindo jovens e crianças (acompanhadas)

# CONSIDERAÇÕES

- ✓ Existe solução tecnológica
- ✓ Contexto social e ambiental
- ✓ **Dimensão humana: Populações locais DEVEM participar e serem ouvidas**
- ✓ Comprometimento do poder público





Obrigado.

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