Sanitation in Rural Areas: SISAR Model – history and next challenges.

25th SuSanA Meeting
17 March. 2018
Victor Bustani Valente
Introduction – KfW
SISAR Model
Context – Sanitation in Rural Areas in Ceará
Next challenges
Enrollment of KfW - Rural Projects in Brasil

Program KfW in Bahia

1991 - Start of KfW I - Ceará
1995 - Foundation of SISAR Sobral and Centrais in Bahia
2004 - Program KfW II - Ceará

Program KfW in Ceará

1991 - SISAR Piauí
1996 - Program KfW III - Ceará
1999 - Foundation of GESAR (CAGECE)
2004 - Preparation of KfW IV – Ceará
The model in vogue at the time - 80's'
Construct and “deliver” to the community

Let’s invest in infrastructure!!!! 😊

Who will operate and maintain it???

A couple of years later...
Key decisions that contributed to the initial success of the SISAR Model

- Users should organize themselves into Associations and join SISAR; it was a guess for the future because no one knew how it would work;
SISAR Model – responsibilities

**Community:**
- Management and operation of the system
- Water treatment / small repairs
- Strengthening of local associativism

**SISAR:**
- Shared management with the local community
- Maintenance and control of water quality
- Environmental-social capacity building

**User:**
- Payment of the tariff
- Conservation of the systems
- Strengthening of local associativism
SISAR - ideas that created the model - 90’s

Key decisions that contributed to the initial success of the SISAR Model

- Users should organize themselves into Associations and join SISAR; it was a guess for the future because no one knew how it would work;

- It was necessary to charge for the maintenance of the service;
**SISTEMA INTEGRADO DE SANEAMENTO RURAL DA**
**AV. CARNEIRO DE MENDONÇA, S/N - PICI**
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**Localização** 09.41.41.000.000.0000

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**Descrição dos Serviços**

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**Consumo** 10

**Total Conta:** 13,22

**Histórico**

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**Fatura Mensal**

**Inscrição** 0000319.7  **Hidrômetro** 83481

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**KFW**
SISAR - ideas that created the model - 90 's

Key decisions that contributed to the initial success of the SISAR Model

- Users should organize themselves into Associations and join SISAR; it was a guess for the future because no one knew how it would work;

- It was necessary to charge for the maintenance of the service;

- It was necessary to install water meters for families; some argued that consumption control should be done by decreasing the quantity supplied (decreasing the flow at the entrance of the houses);

- The social component should be valued in the Program (R$);

- There should have been a SISAR standard adherence criteria and an external consultancy that could mediate issues / problems that appeared throughout implementation.
SISARs results to date (after over 20 years)

- Approx. 600,000 beneficiaries (Water Supply, bathrooms and sewage pits)
- Approx. 1,500 communities (Ceará, Piauí and Bahia)
- ~ 5% of defaults
- Considered one of the best models for water distribution management in rural areas.
- In Ceará: 8 SISARs serving aprox. 500,000 inhabitants in over 1,100 communities.\(^1\)

Scenario shows, however, that there is still much to do...

\(^1\)In Ceará in 2016, the State Sanitation Law presents a chapter on rural sanitation and the state’s option to work with Federations of Community Associations. With this Law, we can say that there is now a public policy for this sector (small localities).
Sanitation in rural areas – Ceará State

Rural population in Ceará
2,1 Mio inhabitants

Piped Water
- 30% with access
- 70% without access

Treated Wastewater
- 95% with access
- 5% without access
Water scarcity and lack of proper sanitation
Águas do Sertão Program

- 62,5 Mio Euro
- Loan is given to SCidades.
- Main Stakeholders: SCidades, CAGECE, SISARs.
- 5 years duration: until 2023 (Preparation: 2016-2018)

Objectives:

› to reduce the vulnerability of the rural population to droughts and water shortages improving their living and health conditions.

› to contribute to the universalization of the access to basic water and sanitation services in the rural area of the federal state of Ceará and to the provision of adequate services.
Next Challenges – Opportunities for SISARs

- Regulate the relation between the municipal power, associations and SISARs.
- Create a mechanism for faster implementation of new investments.
- Secure resources for recovery of existing systems (in operation).
- Ensure SISAR sustainability from a technical and financial point of view (not all SISARs are "independent").
- Define a strategy on how to offer a better coverage of sewage treatment (collection of sludge, treatment, reuse).
A few open Questions - Sewage

Wastewater – central treatment:
• Condominial system really work? Is there successful examples? What is key?
• Which other example, besides lagoons could be arrisen as an cost effective alternative?
• Is Evapo-Transpiration Absorption Septic Systems an alternative? Is there examples in large scale?

Individual treatment:
• What to do with homes that lack adequate sanitary facilities?
  a) Standard sanitary module outside the house? How engage the population?
  b) House-to-house sanitary solutions? What should be the contribution of the house?
    What is the best way to define it?
• How do we ensure sludge management?
Obrigado pela Atenção!
Contato

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