

CEARÁ – BRAZIL

ALCEU GALVÃO

Water and Sanitation Manager at Secretary of Cities
Dr. in Public Health

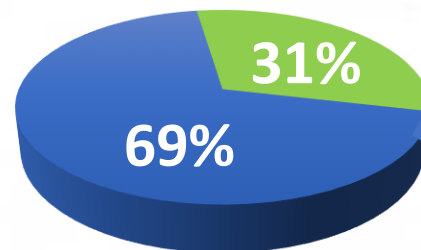


GOVERNO DO
ESTADO DO CEARÁ
Secretaria das Cidades



| INFORMATION | CEARÁ | BRAZIL |
|-----------------------|----------------------|--------------|
| No. of municipalities | 184 | 5,570 |
| Population (2010) | 8.5 million | 204.8 milion |
| Rural population (%) | 25% (2.2 million) | 16% |
| GDP per capita (US\$) | U\$ 2,618 | U\$ 3,169 |

WATER ACCESS FOR RURAL POPULATION



■ WITH ACCESS ■ NO ACCESS

✓ 25% managed by SISAR (associations of communities) and planned to increase

✓ 44% CAGECE (state company), SAAE (autonomous municipal systems) and single communities

Integrated Rural Water and Sanitation System - SISAR



- Total Population Served: 551,487
- No. of Communities: 1,419
- No. of Municipalities: 146
- No. of SISAR: 8 associations (one per watershed)

SISAR is a federation of rural community associations

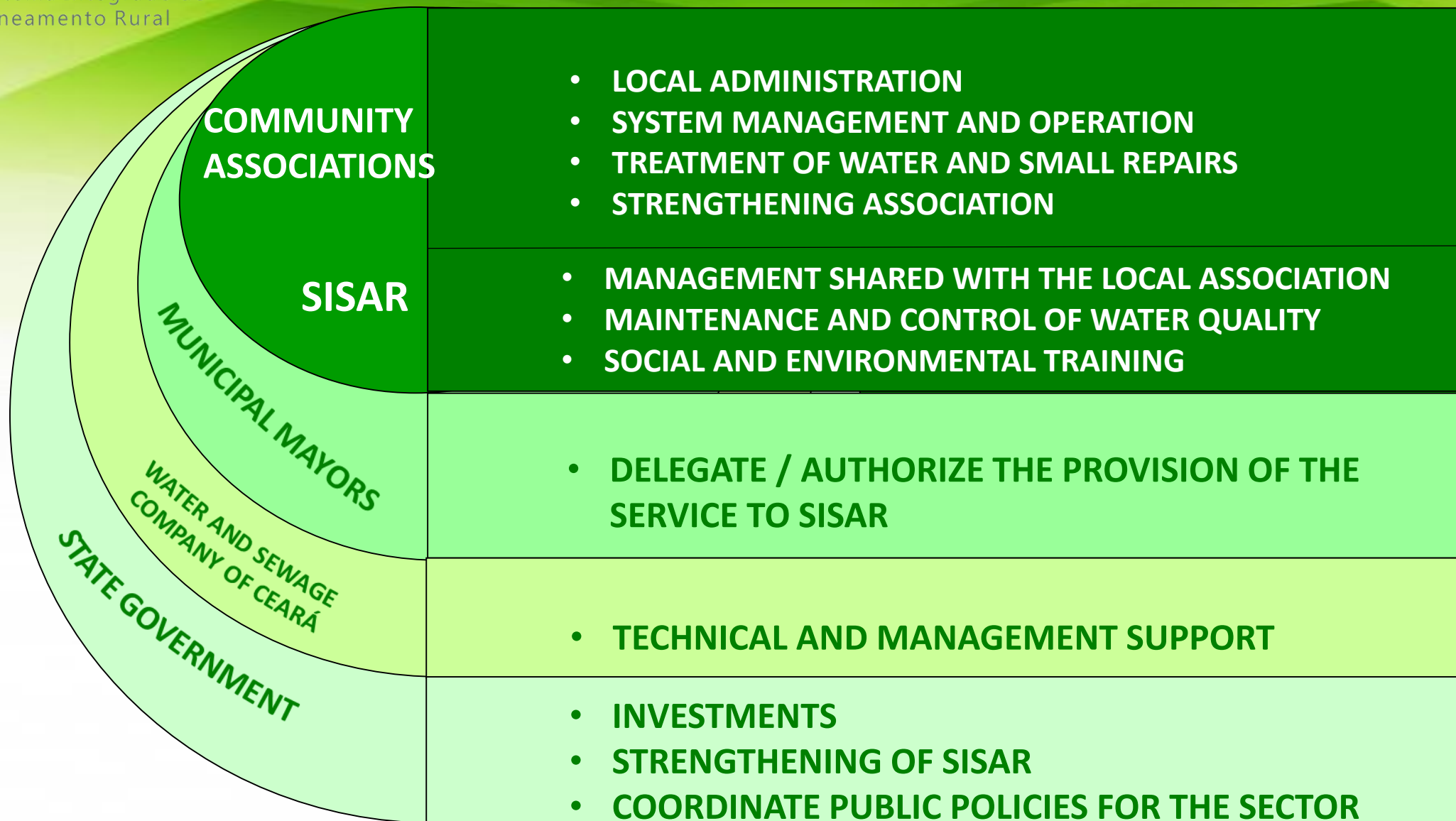




SISAR

Sistema Integrado de Saneamento Rural

ROLE OF EACH STAKEHOLDER



SISAR
is a c
access
inves
prog

Integrated Rural Water and Sanitation System – SISAR

Financing OPEX and Support



SERVICES AND RATES

| CODE | DESCRIPTION | VALUE |
|------|------------------------------|----------|
| 001 | WATER CONSUMPTION (10 m3) | U\$ 3,61 |
| 029 | OPERATOR | U\$ 1,80 |
| 030 | ENERGY | U\$ 0,33 |
| 031 | ADMINISTRATIVE RATE | U\$ 0,9 |

SISTEMA INTEGRADO DE SANEAMENTO RURAL DA
 AV. CARNEIRO DE MENDONÇA, S/N - PICI
 FORTALEZA - CE - CEP: 64.440-160
 C.N.P.J.: 05.172.294/0001-52 - Fone : (85) 3290-1692

CONTA D'AGUA
 FOLHA: 1/1

ASSOCIAÇÃO
 ASSOCIAÇÃO COMUNITÁRIA INTEGRADA DE QUEIMADAS
 INSCRIÇÃO: 0000457.5

CNPJ: 07.441.536/0001-91
 EMISSÃO: 23/07/14
 MESFAT: MAI/2014

MOACIR PORTACIO DE SOUZA
 QUEIMADAS, PALMÁCIA
 QUEIMADAS
 PALMÁCIA
 CEARA
 CEP: 60.440-160
 LOCALIZAÇÃO: 02.17.17.000.000.0000

| ULTIMOS CONSUMOS | | | | SERVIÇOS E TARIFAS | | | |
|------------------|------|-----|-----|--------------------|-------------------|--------|-------|
| MES FAT | CONS | CCO | OC | CCO | DESCRIÇÃO | PREST. | VALOR |
| JUN/14 | 08 | 000 | 030 | 001 | CONSUMO DE AGUA | | 8,00 |
| MAI/14 | 08 | 000 | 036 | 029 | OPERADOR | | 4,00 |
| ABR/14 | 12 | 000 | 024 | 030 | ENERGIA | | 0,74 |
| MAR/14 | 10 | 000 | 030 | 031 | TX ADMINISTRATIVA | | 2,00 |
| FEV/14 | 10 | 000 | 027 | | | | |
| JAN/14 | 09 | 000 | 030 | | | | |
| MÉDIA: 00009 | | | | | | | |

HIDROMETRIA

| HORÓMETRO | INSTALAÇÃO | LEIT. ANT. | DT. LEITURA | LEIT. ATUAL | DT. LEITURA | CONSUMO DIAS/CONSUMO | CCO | LEITURISTA |
|------------|------------|------------|-------------|-------------|-------------|----------------------|-----|------------|
| A09F010771 | **/**/** | 0476 | 24/04/14 | 0484 | 30/05/14 | 0008 | 36 | 000 |

OBSERVAÇÕES

PARAMETROS DA AGUA DISTRIBUIDA
 Portaria 2.914 de 12/12/2011 - Valores máximos permitidos

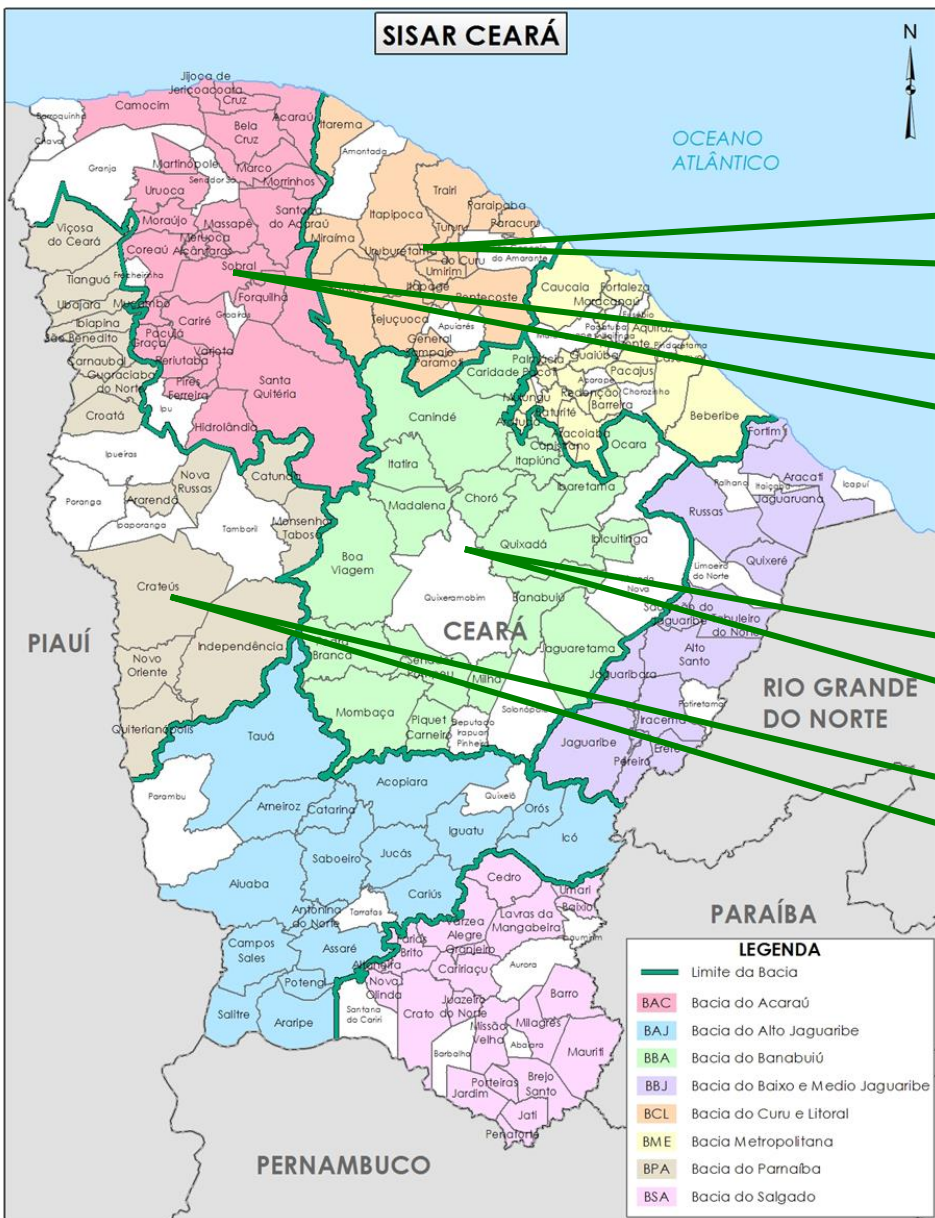
Reservatório: _____ Período: _____

Non-payment of tariffs is less than 5%

FEDERATION OF RURAL WSS COMMUNITY ASSOCIATIONS



SISAR
Sistema Integrado de
Saneamento Rural



BCL - CURU E LITORAL - 03.07.02
POPULATION COVERAGE: 44,128
AVERAGE WATER CONSUMPTION: US \$ 3.73

BAC – ACARAÚ – 01.27.96
POPULATION COVERAGE: 114,938
AVERAGE WATER CONSUMPTION : US \$ 3.39

BBA – BANABUIÚ – 08.31.01
POPULATION COVERAGE: 75,377
AVERAGE WATER CONSUMPTION : US \$ 3.42

BPA – PARNAÍBA – 08.02.01
POPULATION COVERAGE: 108,000
AVERAGE WATER CONSUMPTION : US \$ 3.40

**Out of US\$7,
around 50%
of revenues
go to SISAR**

RURAL WATER AND SANITATION INFORMATION

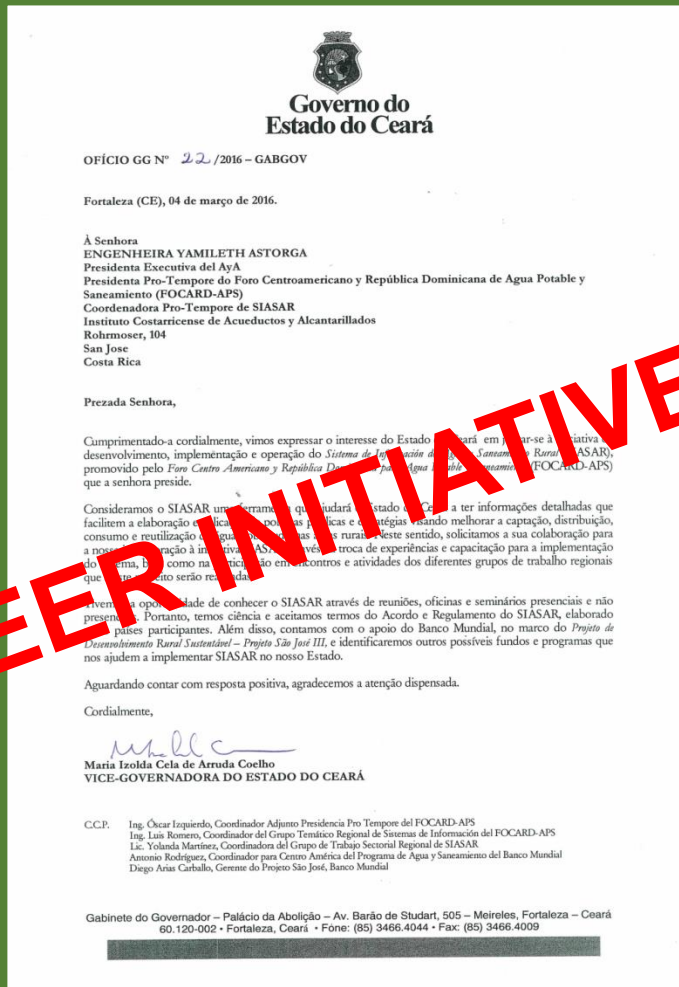
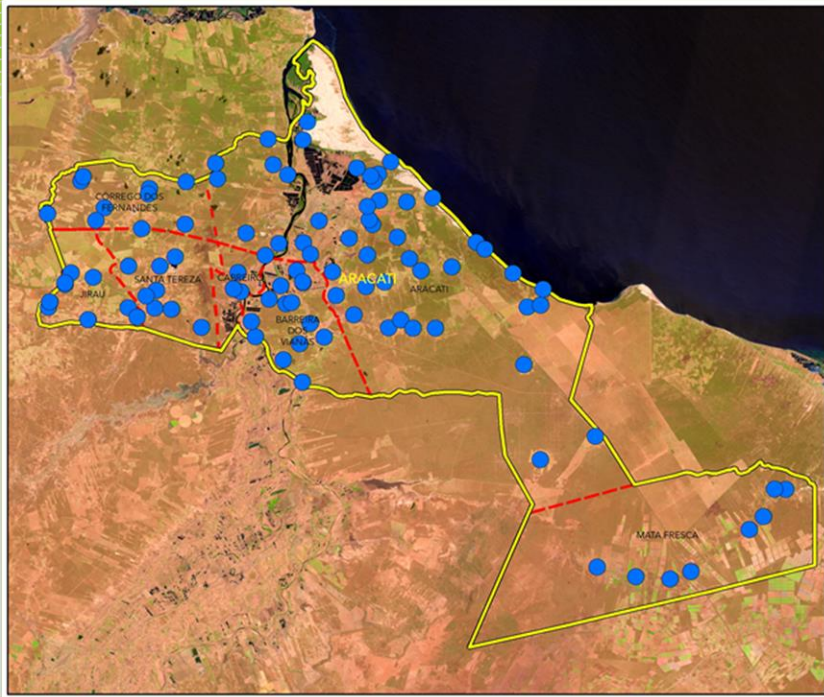
ONGOING QUESTIONS.....



- WHAT PERCENTAGE IS NOT YET COVERED BY SERVICES?
- WHAT IS THE EFFECTIVENESS OF INVESTMENTS?
- HOW MANY COMMUNITIES ARE THERE?
- HOW SHOULD WE ADVANCE?
- WHAT'S THE BEST STRATEGY?
- WHAT IS MISSING FOR REACHING UNIVERSAL ACCESS?

RURAL WATER AND SANITATION INFORMATION SYSTEM – SIASAR*

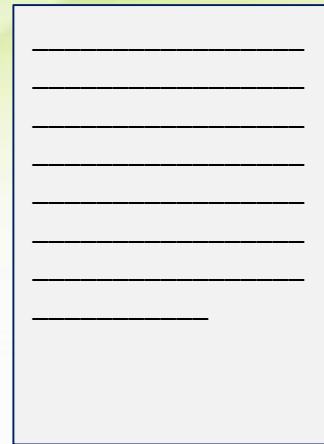
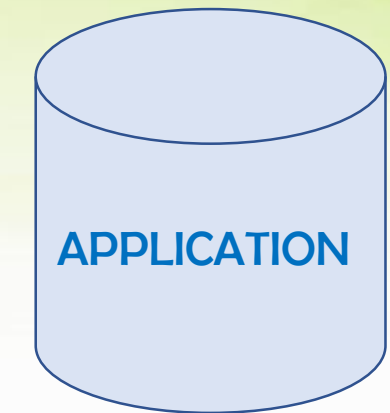
SYSTEM – SIASAR*



PIONEER INITIATIVE IN THE COUNTRY

See: www.siasar.org

RURAL SANITATION INFORMATION SYSTEM – SIASAR USING DATA FOR ENHANCING SUSTAINABILITY



CURRENT SITUATION
PROFILE



USERS



PILOT PROJECT - SIASAR

CITY OF ARACATI

- **Pop: 72.000 inhab.**
- **Rural population: 35%**
- **103 communities**
- **SISAR and CAGECE: as service providers**

| GENERAL INFORMATION | |
|------------------------------|-----------------|
| LOCATION | CÓRREGO DA NICA |
| DISTRICT | ARACATI |
| COUNTY | ARACATI |
| STATE | CEARÁ |
| WATERSHED | BBJ |
| TOTAL POPULATION | 480 |
| ETHNIC PREDOMINATION | PARDO |
| QUANTITY OF TOTAL HOUSEHOLDS | 120 |

Lessons from pilot:

- Partnership with municipalities
- Clear definition of roles. E.g. technicians versus local health agents as supporters



NEXT STEPS: SCALE - CAPACITY BUILDING - INVESTMENTS

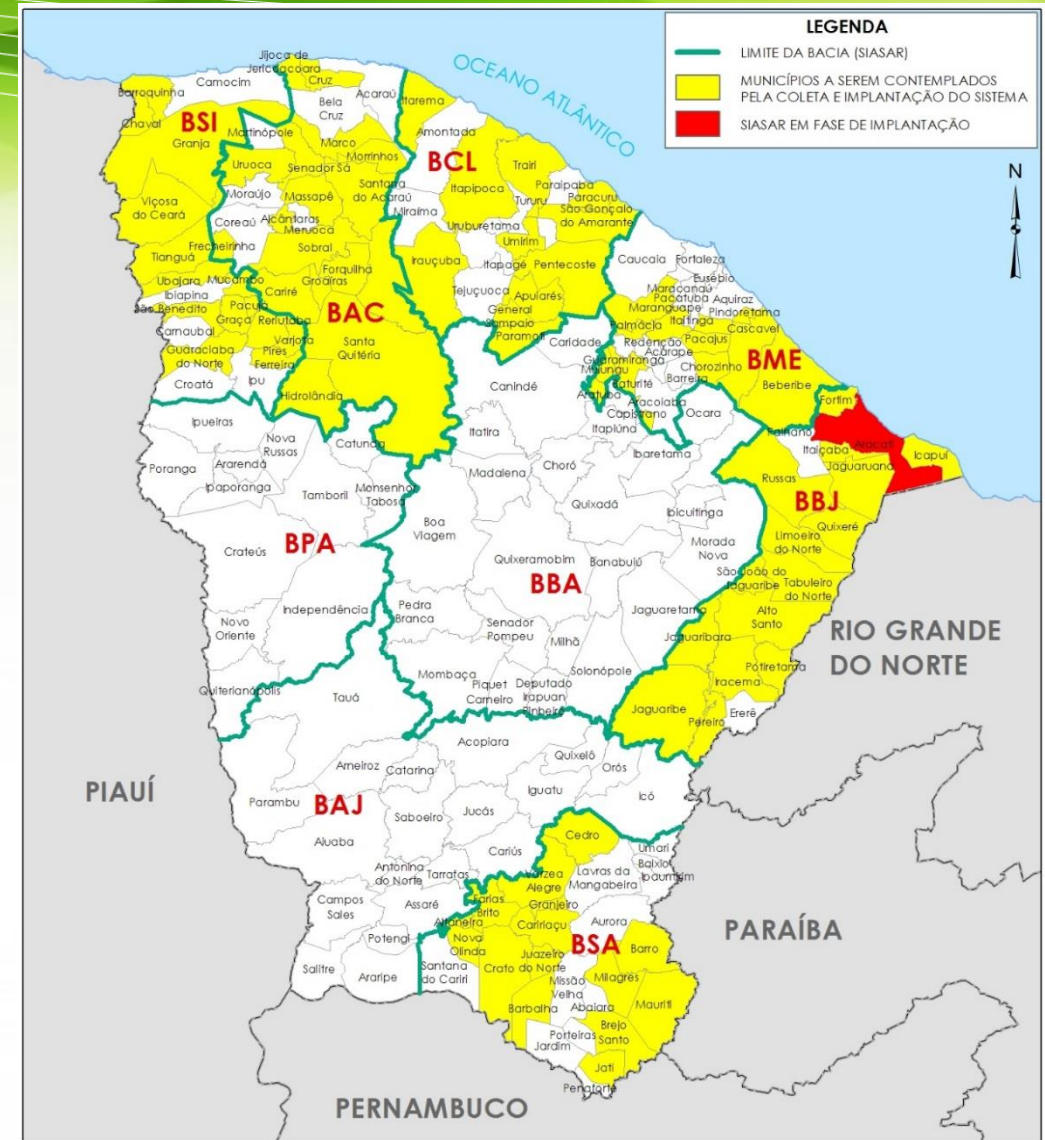
- 82 Municipalities will include data in SIASAR by end of 2018
- Use of mobile platform and improvement of website
- Technical improvements to water systems

Supported by:

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THANK YOU!



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