OBJECTIVE
Over the period 2018-2019, an independent survey of the results of the programme was carried out to measure the principal sanitation and hygiene indicators following the programme of the Global Sanitation Fund-Senegal (a programme supported by the GSF) in Senegal. Launched in 2010, executed with the aid of the local agency, AGETIP, the Senegal programme seeks to improve the living conditions and health of disadvantaged communities by helping them to stop open air defecation, build and use toilets and improve hygiene practices. The following departments have benefited from the aid to accelerate hygiene and sanitation: Goudiry, Kédougou, Mbacké, Matam and Ranérou. The data were collected at the end of 2018.

The specific objectives of the survey were as follows:
- To provide reliable statistical data on the principal results of the GSF-Senegal programme on sanitation and hygiene in households and public establishments
- To determine whether the status of open defecation free (ODF) had been maintained in communities that had been checked previously
- To evaluate the integration of equity and non-discrimination in the programme and the needs of marginalized and vulnerable people and households
- To describe the indicators of an emerging programmatic effects, notably concerning behavioural standards, habits and the degree of satisfaction with regard to the available sanitation services.

METHODS/SAMPLING
The survey will be cross-cutting, relying on a cluster sampling approach in several stages\(^1\). The target population comprises all households and all persons living in the communities where the GSF programme operated. Because the effects were intended to reach the whole community, including outside the household, the data collection also includes an evaluation of schools and health establishments in all the selected communities. The sample size was calculated using the probability proportional to size method for households, without any reduction, and the cumulative total method. As the availability of earlier empirical data which might guide the estimates was limited, the most prudent assumption was used, namely a prevalence of results of 50%, with a margin of error of 7%. The descriptive presentation of the survey data at household level must therefore rely on weighted analysis taking into account the sampling strategy. The principal collection tool was the questionnaire prepared by the University of BUFFALO in collaboration with the WSSCC, which commissioned the study.

CONTEXT
WSSCC granted funding to the Government of Senegal (AGETIP) through the Global Sanitation Fund (GSF) between 2010 and 2018. The GSF Senegal programme put in place a programme the principal objective of which is to improve the living environment and health of disadvantaged or poorly served populations by ending open air defecation in the intervention areas of the programme thanks to the Community Led Total Sanitation (CLTS) approach and social marketing. This has been reflected in a significant improvement in access to hand-washing facilities and latrines

National ODF criteria: By relying on the UNICEF and GSF criteria to determine the status of ODF, Senegal defined its evaluation criteria in conjunction with comparable Senegalese institutions to discover whether the target villages has achieved the ODF status: 1. Each family has at least one latrine (shelter, slab with cover over the defecation hole, whatever the type); 2 All the members of the family use the latrine; 3. Each latrine is equipped with a hand-washing facility (of whatever type); 4. Cleanliness of the village and cleanliness around sanitation works; and 5. Absence of faeces in the open air in the community.

<table>
<thead>
<tr>
<th>Table 1: Sample distribution based on the sampling strategy in several stages of the results survey, 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strata</strong></td>
</tr>
<tr>
<td>Principal sampling unit</td>
</tr>
<tr>
<td>Households</td>
</tr>
<tr>
<td>Structured observations</td>
</tr>
<tr>
<td>Health/school establishments</td>
</tr>
</tbody>
</table>

**PRINCIPAL FINDINGS**

**Water, sanitation and hygiene:** Overall, the results of the survey suggest a general improvement in most of the WASH components compared with before. Over 70% of households have basic or safe access to water, and 77% of them have access to improved latrines. Some 42% of households do not have access to any hand-washing facility.

**Social norms and practices:** Among all the households in the survey, only 30% showed social norms very entrenched in favour of using latrines. Nevertheless, the results showed a willingness on the part of the community to give up OD, even if some of them do not have toilets. Consequently, people disapprove of the practice of OD and approve the systematic use of toilets (82%), with differentiated percentages of 86% for women against 73% for men.

**Sustainability of ODF:** The majority of villages (91%) previously declared as ODF do not show any signs of the presence of human faecal matter around households or concessions. Some 80% of households living in a community previously declared as ODF still have access to improved sanitation facilities.

**Access to a water supply**
The majority of households in the area covered by the programme have access to a “safely managed” water supply (55%). Added to this is that just under one fifth of households (19%) have access to a “basic” water supply. This is close to the rural level of 68% (continuous demographic and health survey-EDS 2017) related to access to an improved water source. Matam (91%) and Mbacké (59%) have a majority of households which have access to a “safely managed” water supply. However, the majority of households (53%) in Goudiry have access to an “unimproved” water supply. In general, the better off the household, the greater the likelihood that it has access to a safely managed water supply.

**Access to sanitation facilities**
The results show that households in the area of intervention of the GSF-Senegal programme mainly have access to toilets of a “limited” type (40%) while the “basic” and “safely managed” levels represent over one third of households (37%). Open air defecation is still practised by over 16% of households and declines the wealthier the household. It may be observed that the quality of latrine increases the wealthier the household.

**Access to hand-washing facilities**
The rate of access to hand-washing facilities (limited and basic level) is rather low (58%). It is interesting to note that the effect of wealth has not improved access to hand-washing, as shown in Figure 3. The distribution of the 3 levels of access to hand-washing facilities seems to have little relation to the wealth quintile to which the household belongs.
Social norms of toilets and hand washing

The social norms in favour of sanitation are barely established. Populations perceive that their behaviours are not adopted by the majority of people in the community. Individual behaviour is strongly influenced by community behaviour: 93% are ready to conform to the norm for systematic use of a toilet if everyone in the community does so.

Both men and women perceive on average the existence of a social norm in favour of hand washing. However, recognition of this social norm is not enough to ensure adhesion to it among recalcitrant or incapable groups. Thus, households consider that hand washing must be systematic only before and after meals.

Satisfaction

Among the measures to preserve their intimacy, state of cleanliness and sense of security during the day and at night, one finds very considerable levels of satisfaction in all departments and among the majority of women. The majority of people suffering from limited mobility/vision also have considerable satisfaction, less than the 65 years and over who show very high levels of satisfaction. According to status, one finds that the majority of women living in villages declared as ODF (75%) say that they have toilets which preserve their intimacy compared with a minority of women living in non-ODF villages (40%).

In general, the wealthier the household, the more it manages to maintain access to an improved latrine when its village has previous been declared ODF.
Exposure to the programme’s activities

The results show that the people interviewed mostly participated in activities relating to the elaboration of a “plan aimed at building toilets for their homes” (57%), receiving someone coming to talk about using a toilet (56%), and relating to “trying to convince other people to stop open air defecation (54%).

The comparison by gender shows that both women (73%) and men (69%) in the majority participated in one or more activities. It may be noted, however, that women participated the most in one, two or three activities. On the other hand, one finds a higher percentage of men (67%) who took part in 4 activities. According to wealth quintile, the results show that the majority of all quintiles participated in at least one activity. This seems to suggest that participation or otherwise in an activity is not related to belonging to a wealth quintile.

Equity and non-discrimination

The results show that the majority (over 64%) of households throughout the intervention area of the GSF-Senegal programme, men, women, girls, boys and persons living with a disability are allowed to use the household toilet. However, only about 50% of persons over the age of 65 actually use the household toilet.

Menstrual Hygiene Management (MHM)

Questions concerning menstrual hygiene management are included in the questionnaire on women for persons interviewed who had already started their periods.

- **Appropriate products for their menstrual hygiene management and a private place to wash and clean their body**: Some 70% of people have appropriate MHM products at home. 97% say that they have clean water and a place to wash sanitary napkins. There are no obvious effects between the level of education and wealth of households on access to MHM. However, the department seems to have a stronger effect.

- **On awareness raising and stigmatization related to menstruation**: The majority of women are not informed before their first periods (on average 72%). However, they know how to manage them, 87% on average. In general, even if 99% of women agree that menstruation is a natural biological process, 58% feel shameful during this time.

- **On exclusion from activities during menstruation**: On average, 14% of women felt limited in their activities during menstruation. The effect of age, education and household wealth does not seem to have any obvious effect on restrictions.

Situation WASH services in schools in the framework of GSF-Senegal

- **Water**: Observations in the 47 schools covered by the survey showed that 95% of them provides access to an improved
Water: The results of observations in 22 health establishments show that the majority of health establishments have access to a “basic” water supply (58%), 26% have a limited service and 16% have no service. This water is used for drinking (94%) and for treatment of patients (100%) and maintenance of medical equipment. It should be noted that 67% of the health establishments treat the water from the main source by all possible means so that it is drinkable. Some two thirds of the health centres say that water is generally available throughout the year.

Sanitation: Observations in 22 health establishments show that toilets are in the majority (55%) within the establishment buildings themselves. The toilets are intended for patients (77%) and only 14% are reserved for women. At the level of the JMP programme, one finds 80% with a limited service and 20% without any service. At the time of the survey, 59% of the toilets were locked.

Hand hygiene: Observations in the 22 health establishments show that 60% have no service, 10% have a limited service and 30% have a basic service. 82% of the facilities have water and 64% have both water and soap for hand washing. 55% are accessible via a clear and unobstructed route (stairs or steps) and provide security to people with reduced vision/mobility. Over half the facilities are provided with soap and water in the women’s toilets, provide facilities for menstrual hygiene management and have a waste bin (27%).

Limits of the study

Most of the data are self-declared and the respondents may have over-estimated or under-estimated certain of their statements. However, for the indicators most likely to produce extreme values (such as cost-related elements), the analysis focused on median values and provided the interquartile range, the standard deviation and/or the confidence interval.

The different populations studied in each different section vary. In general, for several disaggregations, some results may have lost their statistical power. Thus, sample sizes as well as frequencies are provided as much as possible. Also, schools and health centers were chosen according to availability and presence in the villages visited, which limits the interpretation of results to the scale of the program.

A social desirability bias can be observed for certain practices, social norms and usage indicators. The values should be examined with care, with data collected from real structured observations (more objective and representative).

There are certain points of missing data and unexplained information which limited the sufficiency of the information in the report.