



THE CURRENT STATE AND FORECAST OF UTILITIES IN THE WESTERN REGION OF ROMANIA

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Abstract: The work carries out a study on the current situation of utilities (mainly tap water and sewage) in rural towns in the western region of Romania. If urban localities have all these utilities, in rural areas, the situation differs from one county to another. Based on the existing data and the growth of the last 15 years, we made a forecast to see how long it will take the entire rural area to reach the level of urban endowment, respectively 100%. According to the processed data, Timiș and Caraș-Severin counties are the first, followed by Hunedoara and Arad, in the last case, over 13 (for water distribution network), respectively 22 years (for sewage) being needed.

• Introduction

The equipping of houses and localities with a drinking water installation represents, at this moment, a standard that which should no longer be discussed to give the attribute of a locality or housing as having civilized living conditions. Also, localities and homes equipped with water supply systems, by default, must have centralized or local waste water discharge systems (sewage networks).

A lack of basic sanitary facilities, and here we mainly refer to flushing toilet, is a measure of poor-quality housing and is also considered a health risk. More than one in four people in Romania reported in 2019 that their household did not have an indoor flushing toilet (27.7%). This was by far the highest share amongst the EU Member States. In contrast, the share of dwellings with no flushing toilet was below 1% in 19 EU Member States, with the lowest shares in Germany, Luxembourg, the Netherlands and Sweden (close to 0%).

• Material and method

The research carried out is based on statistical data taken from Eurostat and from the website of the National Institute of Statistics, as well as from other bibliographic sources. Based on the collected data, the annual growth averages were determined, which allowed making forecasts for each collected set.

• Results and discussions

From the analyzed statistical data, comparing the values from several neighboring countries (Bulgaria, Hungary and Serbia), respectively two with a high level of development (Germany and France), it turns out that, referring to flushing toilet, Romania is on the last place (figure 1).

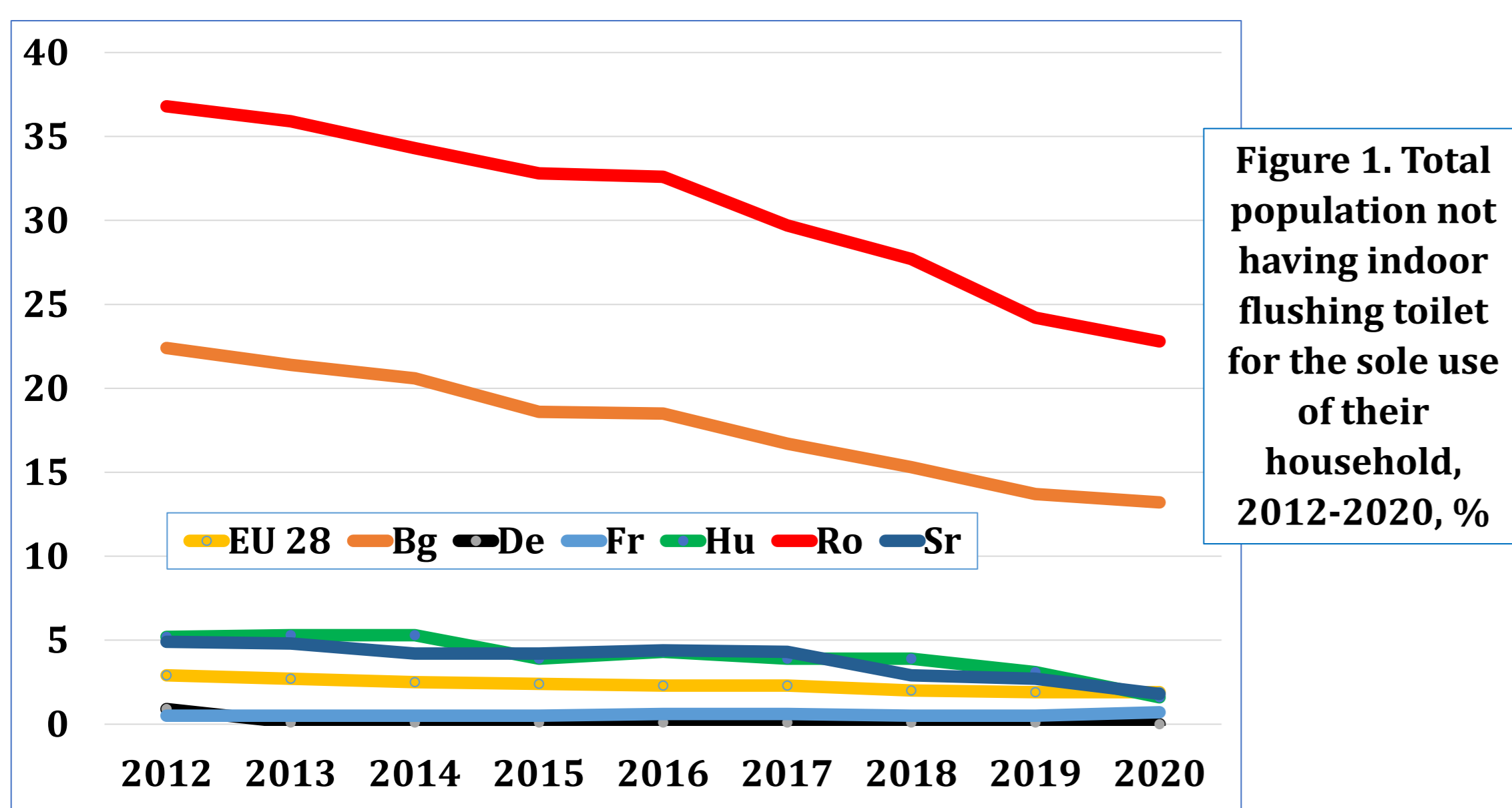


Figure 1. Total population not having indoor flushing toilet for the sole use of their household, 2012-2020, %

The situation is roughly similar, if we compare the same countries, but taking into account a more complex situation, that is, households that do not have a bathroom, shower or toilet in the house (figure 2).

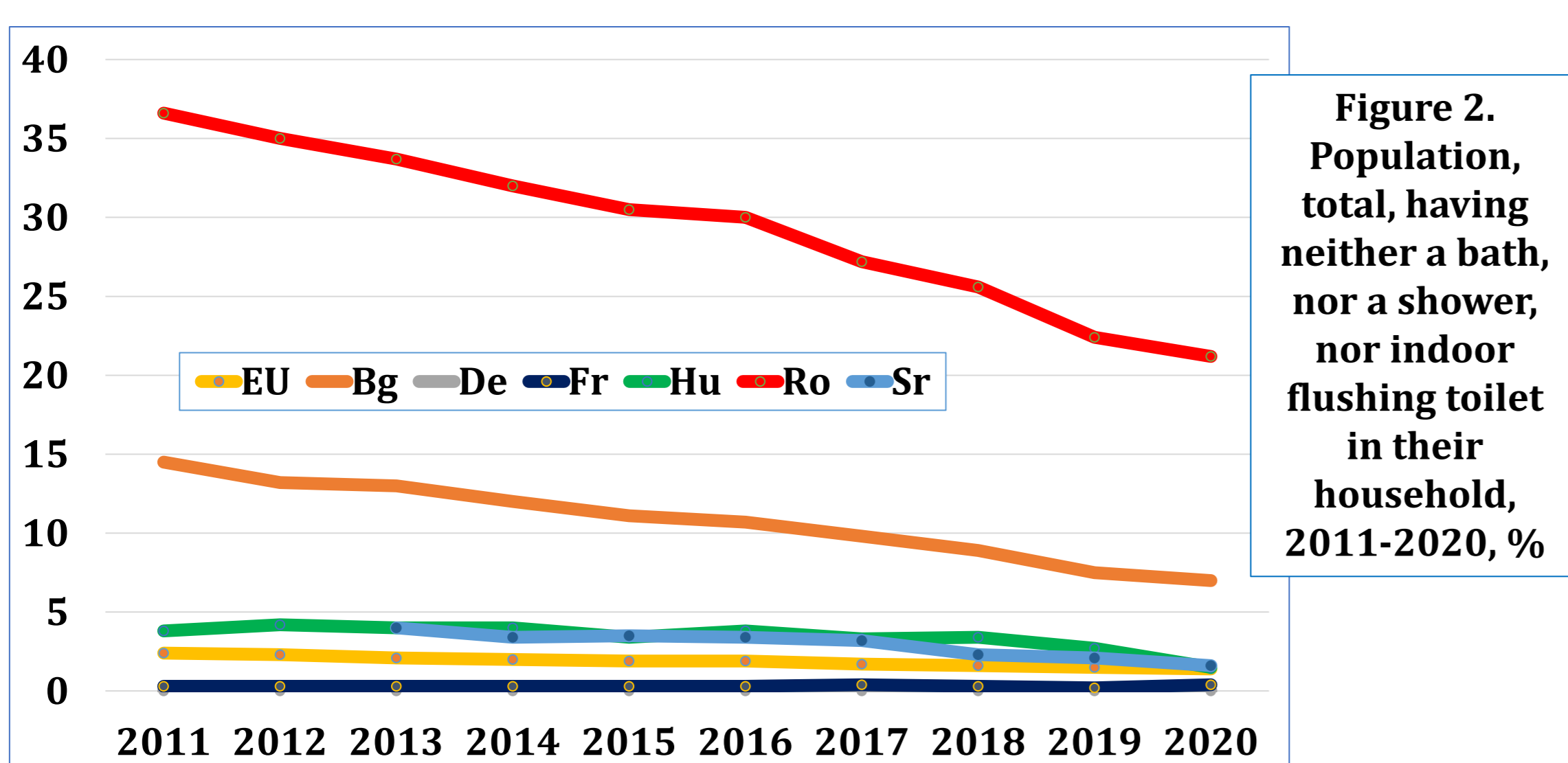


Figure 2. Population, total, having neither a bath, nor a shower, nor indoor flushing toilet in their household, 2011-2020, %

Taking into account where each county started in 2008, and applying the growth percentage determined for each (assuming that it will not decrease for various reasons), 0.4 in Arad, 4.2 in Caraș-Severin, 3.5 in Hunedoara and 1.4 in Timiș, the calculated data show us that Timiș county, even if it did not "leave" first, will be the first to reach 100% in 2024 (figure 3). It is followed by Caraș-Severin in 2025 and Hunedoara in 2030. Arad County, even if it was second in the hierarchy in 2008, if we rely on the calculated average growth, it will reach 100% only in 2046.

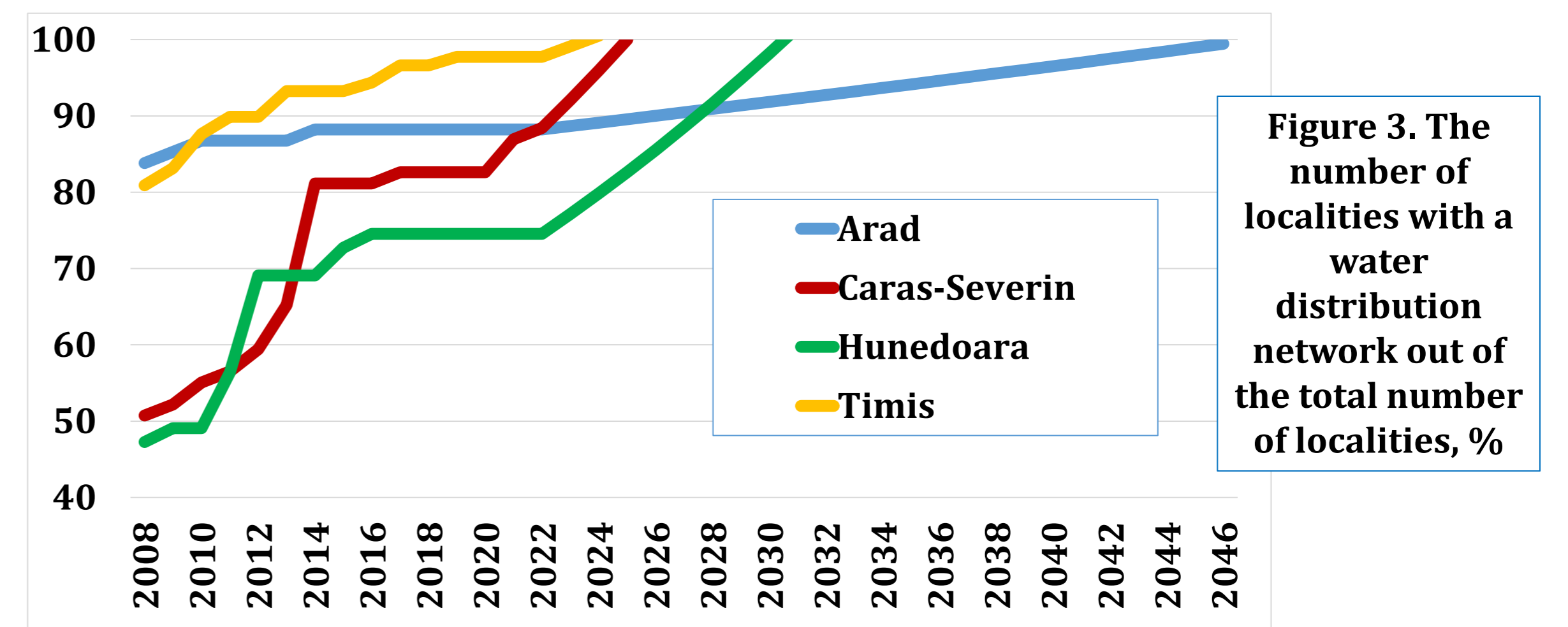


Figure 3. The number of localities with a water distribution network out of the total number of localities, %

Taking the same reasoning for sewerage, the average increases are much higher than in the previous case, namely 5% for Arad, 10% for Caraș-Severin, 7% for Hunedoara and 9% for Timiș.

In this case, the starting point, was close for all four counties, the lowest percentage being in Timiș, 19.1%, and the highest in Arad, 26.5%. It is interesting to note that, after applying the growth percentage, with the same specification as in the previous case, the first county to reach 100% is Caraș-Severin in 2027, followed by Timiș in 2030, Hunedoara in 2031 and, again, Arad in the last place, in the year 2037 (figure 4).

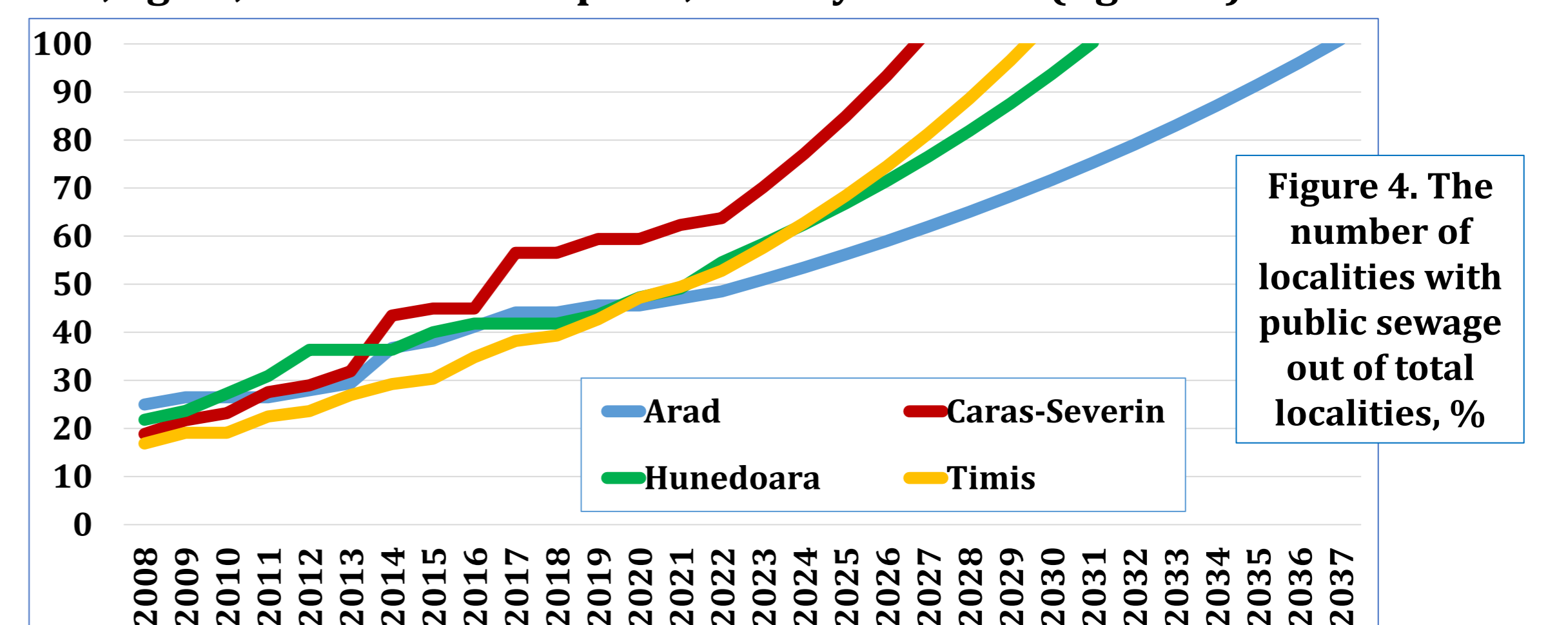


Figure 4. The number of localities with public sewage out of total localities, %

• Conclusions

The results of the study clearly show us that, in Romania, at the end of 2020, approximately a quarter of the population does not have access, at home, to a water distribution network or to sewage services. This situation is considered to be an expression of poverty and at the same time a health risk.

For the counties from the western part of Romania, the growth forecasts, based on the average growth percentages from 2008-2020, show us that it is possible that in seven years, i.e. 2031, in three of the four counties (Timiș, Caraș-Severin and Hunedoara), all the houses from the rural areas to be connected to water and sewage. The fourth county, Arad, even if it was better than the others at the beginning of the studied period, had a much slower growth, punctuated by many stagnations, thus ending up in last place according to the forecast. For this county, the forecast shows reaching the percentage of 100% only six years after the last of the three previous ones, in the case of sewage and over 15 years in the case of water supply. In fact, the sewerage situation can expand in turn, because it is unlikely that there will be a sewerage network without an existing water network.

We are aware that an effective percentage of 100% is very difficult to achieve, if not impossible, but we would be happy if, in 2030, we reach the level of other countries in Europe, i.e. that homes without water and sewerage are located in the range of 2-7%.