

The cases of Dumaguete City and Agusan del Sur

Water service delivery on the ground: targets versus realities

Danilo C. Israel

Potable or drinking water is a critical requirement of human life. Without it, man's continued existence on earth would immediately be threatened. It is for this reason that provision of potable water in adequate quantity and quality is a primary international and national concern. In particular, the United Nations' Millennium Development Goals (MDGs) target is for 86.6 percent of the populations of countries to have adequate access to safe drinking water by 2015 (NEDA 2007). For its part, the Philippine government aims that 92 to 96 percent of its citizens would have adequate water supply at an even earlier date, that is, by 2010 (NEDA 2004).

With 2015 in the not-too-distant future and 2010 only a year away, there is a need to assess the performance of the Philippines in

meeting international and national objectives related to potable water delivery. Evaluating where the country is in terms of potable water supply targets will allow the government to determine whether its objectives are actually achievable or farfetched. An assessment will further determine whether or not there is a need for the government to finetune its methods and fast-track its efforts to attain the stated objectives with the remaining time at hand.

In this regard, in late 2008 and early 2009, the Philippine Institute for Development Studies (PIDS) and the United Nations Children's Fund (UNICEF) conducted a study on local service delivery in education, health,

PIDS Policy Notes are observations/analyses written by PIDS researchers on certain policy issues. The treatise is holistic in approach and aims to provide useful inputs for decisionmaking.

The author is Senior Research Fellow at the Institute. The views expressed are those of the author and do not necessarily reflect those of PIDS or any of the study's sponsors.

and potable water in selected sites in the Philippines, in particular, Dumaguete City in Negros Oriental and the province of Agusan del Sur in Mindanao. In the case of potable water, the study looked into the status of local potable water service delivery in the sites, its performance relative to the MDG and national targets, and the key issues it faces. It also aimed to come up with recommendations for the improvement of said service delivery in local areas.

This *Policy Note* summarizes some of the important results and findings of said study on potable water delivery in Dumaguete City and Agusan del Sur. The *Note* will hopefully

provide policymakers and other interested readers with useful information on the water service delivery situation in local areas and suggest some general actions that can be undertaken for the improvement of potable water service delivery in the sites as well as in similarly situated areas of the country.

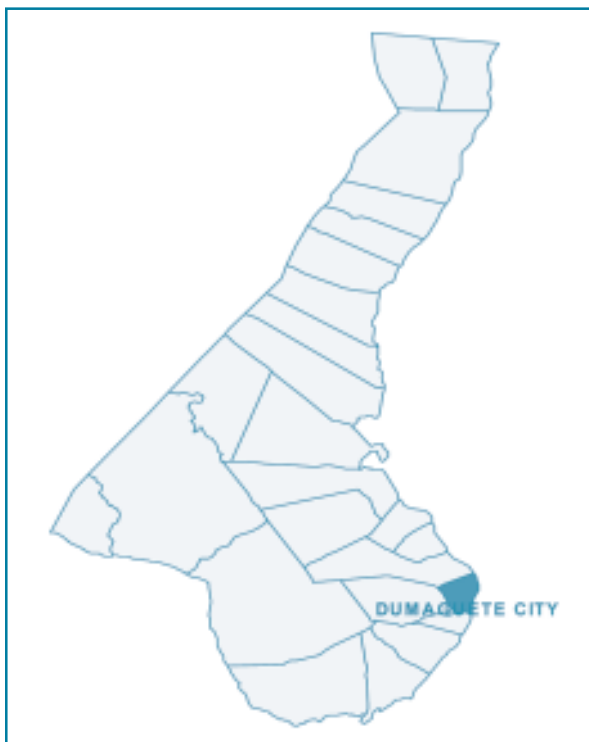
Brief description of study sites

Dumaguete City is the capital of the province of Negros Oriental. It is coastal and located in the southeastern part of the island of Negros facing the provinces of Siquijor and Cebu (Map 1). Dumaguete became a city in 1948 and has a land area of 3,426 hectares. With a population of 116,392 persons in 2007, its population density was 33.97 persons per hectare. Dumaguete City currently has 30 barangays, of which seven were covered by the survey of households conducted for the potable water service delivery study.

The province of Agusan del Sur, on the other hand, is landlocked and located in the Caraga Region which is in the northeastern part of Mindanao. It was founded in 1967 and is classified as a first class province. It is composed of 14 municipalities, 314 barangays, and 2 congressional districts. Agusan del Sur has a land area of 896,600 hectares and is the fourth largest province in the country. With a population of 559,294 persons in 2007, its population density stood at 0.62 person per hectare.

Bayugan, Prosperidad, and Sibagat are the municipalities in Agusan del Sur covered by

Map 1. Map of the province of Negros Oriental highlighting Dumaguete City



the household survey conducted for the study (Map 2). Bayugan is the most populated municipality in the province and is a first class town. Prosperidad is also a first class municipality and the capital of Agusan del Sur. Sibagat is a third class municipality and the newest among the three towns covered by the study.

Number of water systems and households served in the sites

Basically, there are three types of potable water systems in the Philippines. The first is the Level I water system which includes stand-alone water points such as handpumps, shallow wells, and rainwater collectors. The second is the Level II water system which covers piped water with a communal water point such as borewell and spring system. The third is the Level III water system which includes piped water supply with a private water point such as a house connection.

Dumaguete City

In 2007, based on secondary data from the Provincial Planning and Development Office (PPDO) of Negros Oriental, Dumaguete City had 232 Level I water systems, two Level II water systems, and one Level III water system. The Dumaguete City Water District (DCWD) was the lone Level III water system. In Dumaguete City, therefore, the Level I water systems comprised the majority—at about 99 percent—of the water systems. While this was so, however, in terms of households served, the DCWD dominated, serving 19,239 households or 96 percent of

Map 2. Map of the province of Agusan del Sur highlighting the covered municipalities



the total 20,012 households in the city serviced by water systems. The Level I water systems served only 3 percent of the households while the Level II water systems serviced one percent.

Agusan del Sur

Based on secondary data from the Agusan del Sur Provincial Health Office (PHO), the province had 747 Level I water systems, 281 Level II water systems, and 105 Level III water systems in 2007. These water systems served 83,194 households or about 77 percent of the total number of 107,905 households in

the province. The Level III water systems included a few water districts such as those operating in Bayugan and Prosperidad and municipal waterworks systems such as those found in Sibagat. By municipality, the data on the total units of water systems and total number of households served which were

Water is life and essential for well-being and survival of mankind. Thus, it is important to ensure the availability of and accessibility to clean drinking water for everyday consumption.



Table 1. Rate of access to safe drinking water by households in Dumaguete City and Agusan del Sur, 2005 and 2007

Site (Year)	Rate of Access to Safe Drinking Water (%)
Dumaguete City (2007)	92.73
Agusan del Sur (2007)	77.00
Agusan del Sur (2005)	67.97
Bayugan (2005)	83.19
Prosperidad (2005)	62.03
Sibagat (2005)	54.51

Source of Data: PPDO, Agusan del Sur (2008); PHO, Agusan del Sur (2008); PPDO, Agusan del Sur (2005)

available from secondary sources were inconsistent and incomplete.

Performance of potable water service delivery vis-à-vis targets

In 2007, Dumaguete City had a total of 21,582 households, of which 20,012 households were serviced by Level I, Level II, and Level III water systems as earlier mentioned. Therefore, the rate of access to safe drinking water in the city was 92.73 percent (Table 1). This figure is way above the target of the MDGs of 86.6 percent and within the range of the Philippine government target of 92 to 96 percent.

Meanwhile, as also earlier mentioned, 77 percent of the households in Agusan del Sur were serviced by Level I, Level II, and Level III water systems. Furthermore, it was computed based on the community-based monitoring system (CBMS) survey by the PPDO, Agusan del Sur (2005) that 67.97 percent of the households in the province had access to safe water in 2005 (Table 1). This provincial rate of access to safe water was below the MDG target of 86.6 percent and the Philippine government target of 92 to 96 percent.

There are no available consistent data on households at the municipal level in Agusan del Sur that can be used to compute the access rate to Level I, Level II, and Level III water systems. The PPDO, Agusan del Sur (2005), however, computed that 83.19 percent of the households in the municipality of Bayugan had access to safe water in 2005

(Table 1). This rate of access to safe water is significantly better than the 67.97 percent in Agusan del Sur as a whole and is closer, but still below, the MDG and government targets.

Furthermore, the PPDO, Agusan del Sur (2005) computed that in 2005, 62.03 percent of the households in the municipality of Prosperidad had access to safe drinking water as likewise shown in Table 1. This rate of access to safe water is lower than that for Agusan del Sur as a whole and way below the MDG and government targets.

Finally, the computation by the PPDO for the municipality of Sibagat in 2005 was only 54.51 percent of households having access to safe drinking water (Table 1). This rate is the lowest registered performance among the three municipalities; lower than that for Agusan del Sur as a whole and way, way below the MDG and government targets.

Other indicators of performance

Selected results of the survey of households in Dumaguete City and Agusan del Sur conducted for the study indicated that in 2008, the majority of the households had their primary source of potable water located within their neighborhood while many took no time in getting drinking water and just walked to get it (Figure 1). This finding suggests that the local water service delivery sectors in Dumaguete City and Agusan del Sur have performed positively in making potable water easily accessible to households. The figures further indicate that the delivery



Children drink from a communal water fountain at an elementary school in Agusan del Sur.

performance in Dumaguete City in this aspect is better than in Agusan del Sur.

The survey also showed that although adult males were mainly in charge of getting drinking water from the primary source, adult females were also involved. To a lesser degree, male and female children were likewise involved (Figure 2). This shows that there are gender and age dimensions in local water service delivery. It suggests a positive performance of the local water service delivery sector in that it made physically possible for women and children to access drinking water. The numbers indicate that in this regard, the performance in Agusan del Sur is better than that in Dumaguete City.

The survey further found that only a minority of households treated their drinking water and of those who did, most used boiling as

Figure 1. Percentage of households in terms of location of source, means, and time to access drinking water in Dumaguete City and Agusan del Sur, 2008

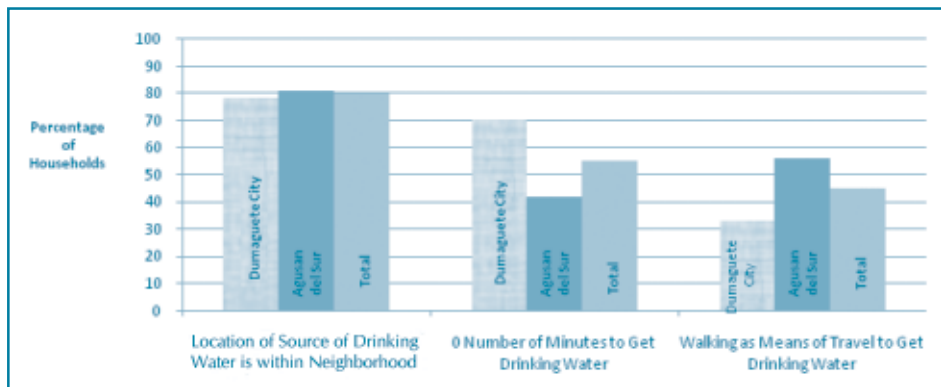
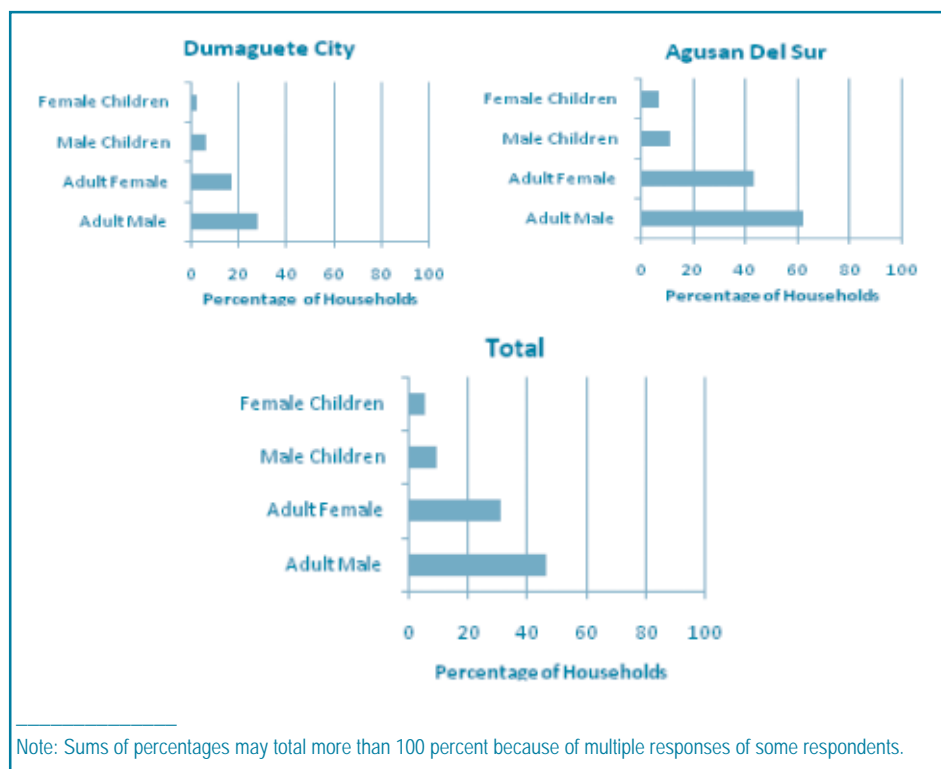


Figure 2. Percentage of households with members in charge of getting drinking water from the primary source in Dumaguete City and Agusan del Sur, by gender, 2008



and of good quality by its users even without further treatment. The figures also indicate that there are more households in Agusan del Sur than in Dumaguete City who do not treat their drinking water.

Finally, the survey showed that there were more households who were willing to pay an additional amount for the improvement of their drinking water than those who were not (Figure 4). Of those who were willing, most will pay an additional maximum amount of P1.00 or less per liter of water. This means that households are willing to pay but only with little additional money for the improvement of their drinking water. The figures also show that there are more households who are not willing to pay in Dumaguete City than in Agusan del Sur. At the same time, there are also more households in Dumaguete City than in Agusan del Sur who are willing to pay but only for a little amount.

the form of treatment (Figure 3). This suggests that potable water coming from local water service providers is considered drinkable

Conclusions and recommendations

In summary, the results of the study indicate

the following in terms of potable water service delivery in Dumaguete City and Agusan del Sur:

- The MDG and national government targets of providing safe access to drinking water have already been achieved in Dumaguete City but not in Agusan del Sur and the covered municipalities of the study.
- There may be positive aspects of water service delivery in the two sites, including the easy accessibility of water, involvement of women and children in water access, and household satisfaction in terms of water quality.
- On the negative side, the willingness to pay of households in the two sites for the improvement of their potable water generally ranges from zero to low. Thus, other ways may have to be developed to finance any water quality improvement to be made.

The key issues and challenges facing the local potable water service delivery sector as well as the recommendations suggested to address them are detailed in the PIDS-UNICEF research

Figure 3. Percentage of households who treated their drinking water and who used boiling as form of treatment in Dumaguete City and Agusan del Sur, 2008

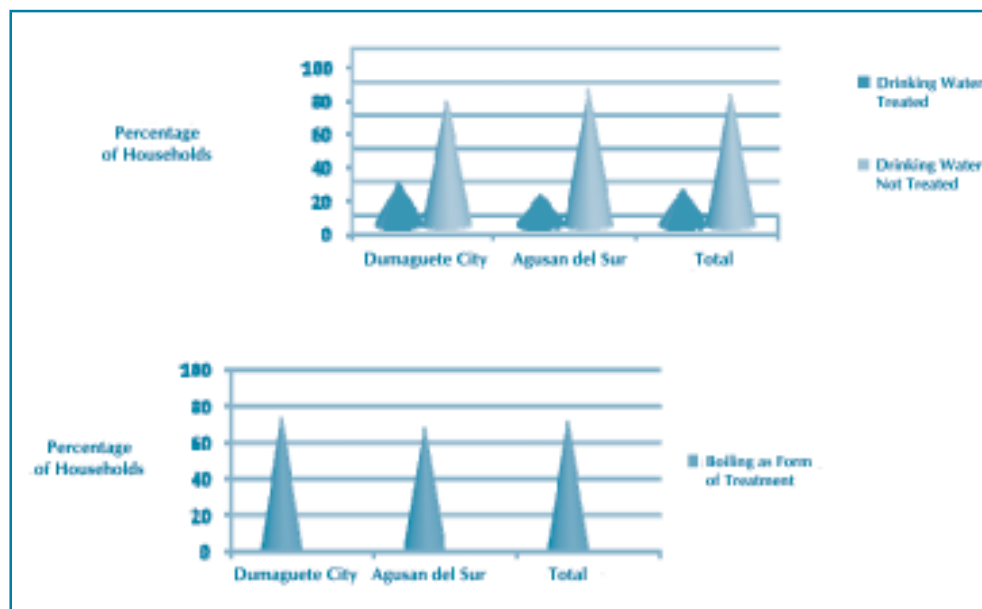
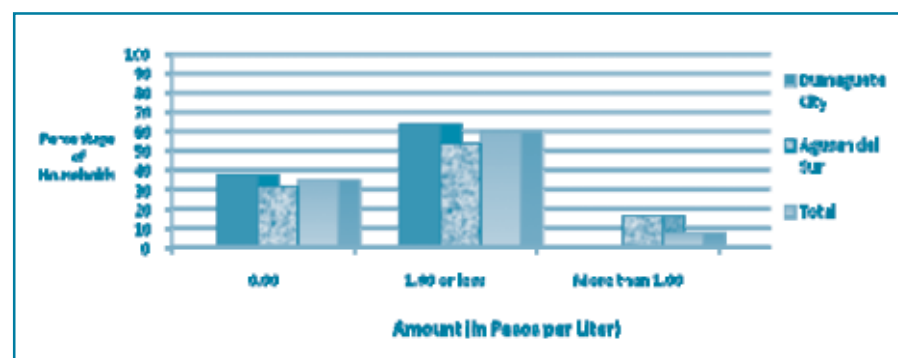


Figure 4. Percentage of households who are willing to pay a maximum additional amount for the improvement of drinking water in Dumaguete City and Agusan del Sur, 2008




(2009). Some of the most important recommendations, particularly for Agusan del Sur and similarly situated areas which have not yet achieved the MDG and national government targets, are the following:

- Effective reforestation of watershed areas and strict monitoring and enforcement

related to illegal logging, water pollution, groundwater extraction, and other related management concerns;

- Development and promotion of workable approaches and organizations to provide water services delivery to waterless barangays, including barangay water and sanitation associations or BWASAs;
- Exploration of the private sector as fund sources for local potable water service delivery and improvement. Other financing sources must be explored, including development lending institutions, donor agencies, and nongovernment organizations (NGOs);
- Improvement of institutional capacity by imposing high standards of personnel selection and conduct of relevant trainings and seminars to improve the capacity of local potable water service delivery institutions; and
- Investment by local potable water service delivery institutions in database and

overall knowledge management, including the full computerization of database and other related activities. 

References

- National Economic and Development Authority. 2007. Philippines midterm progress report on the millennium development goals.
- _____. 2004. *Medium-term Philippine development plan 2004–2010*.
- Philippine Institute for Development Studies-United Nations Children’s Fund. 2009. Improving local service delivery for the MDGs in Asia: the Philippines’ case. A joint project of PIDS and UNICEF. Final draft.
- Provincial Health Office, Agusan del Sur. 2008. Annual Report 2007. Government Center, Patin-ay, Prosperidad, Agusan del Sur.
- Provincial Planning and Development Office, Agusan del Sur. 2005. Community-based monitoring system, Agusan del Sur (core and noncore indicators). 2005. Government Center, Patin-ay, Prosperidad, Agusan del Sur.

For further information, please contact

The Research Information Staff
 Philippine Institute for Development Studies
 NEDA sa Makati Building, 106 Amorsolo Street, Legaspi Village, 1229 Makati City
 Telephone Nos: (63-2) 894-2584 and 893-5705
 Fax Nos: (63-2) 893-9589 and 816-1091
 E-mail: disrael@mail.pids.gov.ph; jliguton@mail.pids.gov.ph

The *Policy Notes* series is available online at <http://www.pids.gov.ph>. Reentered as second class mail at the Business Mail Service Office under Permit No. PS-570-04 NCR. Valid until December 31, 2009.