

Background Note on MDGs, Non-Discrimination and Indicators in water and sanitation¹

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Inequalities in Access to Water and Sanitation

The Millennium Development Target on water and sanitation is to “[r]educe by half the proportion of people without sustainable access to safe drinking water and basic sanitation.” The Target is measured using two proxy indicators: the proportion of individuals using an improved water source (disaggregated into urban and rural data); and the proportion of individuals using an improved sanitation facility (disaggregated into urban and rural data). The world has probably met, as of 2010, the improved water source goal.² However, the world is very unlikely to meet the improved sanitation goal: “At the current rate of progress, the world will miss the MDG target by 13 percentage points. Unless huge efforts are made, the proportion of people without access to basic sanitation will not be halved by 2015.”³

The official UN mechanism charged with monitoring the water and sanitation Target, the WHO-UNICEF Joint Monitoring Programme for Water and Sanitation (“JMP”), has begun to disaggregate water and sanitation data by wealth quintiles, allowing analysts to understand trends of improvement and stagnation as they vary across socioeconomic levels. This type of disaggregation has been used to striking effect: JMP’s 2011 thematic report *Drinking Water: Equity, Safety and Sustainability* features several graphic depictions of how the poorest sections of society consistently have the lowest levels of access to improved sources of water.⁴ Perhaps most enlightening, the graphs also demonstrate instances where improvements in access were experienced by those in higher quintiles but not lower quintiles, something that would not be apparent from data presented as whole-population averages. For example, *Equity, Safety and Sustainability* includes a figure showing that in between 1995 and 2008 in India, the two poorest quintiles made very little progress in obtaining access to piped water, in comparison with the third and fourth quintiles, which each enjoyed significant improvements, despite their comparatively advantageous starting points.⁵ Perhaps as enlightening as the intra-country comparison of quintiles, however, is the cross-country comparison provided: the report demonstrates that in contrast to the poorest Indians, who saw little improvement between 1995 and 2008, in Bolivia the two poorest quintiles enjoyed very significant improvements in access to piped water.⁶ *Equity, Safety and Sustainability* also includes a graphical representation of the gendered division of labor in water collection showing that women and girls together represent 75 percent of household water collectors, and that in some countries the proportion reaches 90

² See WHO/UNICEF JOINT MONITORING PROGRAMME FOR WATER SUPPLY AND SANITATION, PROGRESS ON SANITATION AND DRINKING WATER: 2010 UPDATE (2010) at 9 (drinking water).

³ See *id.* at 8 (sanitation).

⁴ See WHO/UNICEF JOINT MONITORING PROGRAMME FOR WATER SUPPLY AND SANITATION, DRINKING WATER: EQUITY, SAFETY AND SUSTAINABILITY (2012) at 27 (comparing access to improved water source by quintile in India and Bolivia) [hereinafter EQUITY, SAFETY AND SUSTAINABILITY].

⁵ EQUITY, SAFETY AND SUSTAINABILITY, *supra* note 4 at 27. In India, 0% of the poorest quintile in 1995 had access to piped water; by 2008, 2% had such access. In contrast, 7% of the third quintile had access to piped water in 1995; by 2008, 18% had such access. 22% of the fourth quintile had access to piped water in 1995; in 2008, that proportion was up to 37%.

⁶ EQUITY, SAFETY AND SUSTAINABILITY, *supra* note 4 at 27. In India, 0% of the poorest quintile in 1995 had access to piped water; by 2008, 2% had such access. In Bolivia, in contrast, 2% of the poorest quintile in 1995 had access to piped water; by 2008, 37% had such access.

percent.⁷ As JMP notes, this “creates significant burden, especially when the time taken to collect water is considerable.”⁸

These data and their effective presentation demonstrate the promise of quantitative indicators in relation to the rights to water and sanitation. However, although the JMP data are helpful in pointing to socio-economic segments of the population that experience obstacles in accessing water and sanitation, JMP does not speak directly to the broader impacts of discrimination and inequality. JMP global monitoring has not included attention to many other axes of difference within societies that might be relevant to understanding the gap between those who have sustainable access to safe drinking water and sanitation and those who do not, such as race and ethnicity or disability.

Analyses of this type have been conducted at the national level by human rights mechanisms, advocacy groups, and research institutions. Evidence suggests that minority groups, women, and marginalized groups often experience obstacles to accessing water and sanitation at disproportionate rates. The Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation (“Special Rapporteur on Water and Sanitation”) has systematically investigated unequal access to water and sanitation as part of her mandate (see Box 1⁹).

⁷ EQUITY, SAFETY AND SUSTAINABILITY, *supra* note 4, at 28.

⁸ EQUITY, SAFETY AND SUSTAINABILITY, *supra* note 4, at 28.

⁹ Sources for text in Box 1 are as follows: Costa Rica: UN Human Rights Council, *Report of the Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation, Catarina de Albuquerque: Addendum: Mission to Costa Rica*, ¶ 48, U.N. Doc. A/HRC/12/24/Add.1, (June 23, 2009); Egypt: UN Human Rights Council, *Report of the Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation, Catarina de Albuquerque: Addendum: Mission to Egypt*, ¶ 22, U.N. Doc. A/HRC/15/31/Add.3, (July 5, 2010); Bangladesh: UN Human Rights Council, *Joint Report of the Independent Expert on the Question of Human Rights and Extreme Poverty, Magdalena Sepulveda Cardona, and the Independent Expert on the Issue of Human Rights Obligations Related to Access to Safe Drinking Water and Sanitation, Catarina de Albuquerque: Addendum: Mission to Bangladesh (3-10 December 2009)*, ¶¶ 25, U.N. Doc. A/HRC/15/55, (July 22, 2010); Slovenia: UN Human Rights Council, *Report of the Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, Catarina de Albuquerque: Addendum: Mission to Slovenia*, ¶ 33, U.N. Doc. A/HRC/18/33/Add.2, (July 4, 2011); Japan: UN Human Rights Council, *Report of the Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, Catarina de Albuquerque: Addendum: Mission to Japan*, ¶ 46 (but important background provided in ¶¶ 44 and 45), U.N. Doc. A/HRC/18/33/Add.3, (July 4, 2011); United States: UN Human Rights Council, *Report of the Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, Catarina de Albuquerque: Addendum: Mission to the United States of America*, ¶ 79, U.N. Doc. A/HRC/18/33/Add.4, (Aug. 2, 2011); Press Statement: Mission to Namibia, 4-11 July 2011, at <http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=11223&LangID=E>; Déclaration à la conclusion de la visite au Sénégal de la Rapporteuse spéciale sur le droit à l'eau et l'assainissement, at <http://www.ohchr.org/FR/NewsEvents/Pages/DisplayNews.aspx?NewsID=11625&LangID=F>.

Box 1. Special Rapporteur on Water and Sanitation on Discriminatory Access to Water and Sanitation

Costa Rica: The vast majority of indigenous peoples living in the 24 reserves in the country do not have access to safe drinking water or sanitation services

Egypt: Women and girls are overwhelmingly tasked with collecting water and must spend a lot of time searching for water; women and girls are physically and sexually threatened when they fetch water

Bangladesh: Dalits suffer discrimination in accessing water and sanitation. In one community, Dalits had no access to water or safe sanitation; in another Dalit slum, two water points reportedly served 12,000 people

Slovenia: A study of 95 Roma settlements found that 21 had no access to water, either from public water works or from a local water source. Many of them also had no access to sanitation, while the entire rest of the Slovenian population has access to water and sanitation.

Japan: Very poor communities of Korean descent live in settlements whose “illegal” status means that no household in the community is connected to the sewage network

United States: Groups that face obstacles in their enjoyment of the rights to water and sanitation are disproportionately Black, Latino, American Indian, homeless or otherwise disadvantaged

Namibia: Groups of poor people living in peri-urban areas of Windhoek who are clearly low income and do not consume very much water, pay more than the basic rate

Senegal: Poor communities in Dakar who buy their water from *bornes fontaines* pay a price 4 times higher than those who are connected to the network and benefit from social tariffs. The same happens with poor urban communities who are not connected to the sewerage network and have to pay a high price for emptying their septic tanks

Advocacy groups and researchers have used quantitative data to demonstrate the difficulties groups who suffer discrimination face accessing water and sanitation (see Box 2¹⁰). Until now, however, such data have not been effectively collected and analyzed at the global level.

Axes of difference such as race, ethnicity, religion, and gender, are often avenues of discrimination, and understanding them better could help to reveal the dynamics leading to differential outcomes in access to water and sanitation within and across countries. Such dynamics are directly addressed by human rights law through its fundamental guarantee of equality and non-discrimination. International human rights law requires States to dismantle discrimination and ensure equality in all spheres. Without data to understand discriminatory access to rights like water and sanitation, however, knowledge about the contours of discrimination and the efficacy of measures taken to disrupt and rectify its impacts remains underdeveloped. More importantly for the effort to extend water and sanitation to all, however, is the fact that the failure to identify and understand discriminatory processes and their impacts

¹⁰ Sources for the text in Box 2 are as follows: WHO, “Health of Indigenous Peoples: Fact Sheet NO. 326,” (2007), available at <http://www.who.int/mediacentre/factsheets/fs326/en/index.html> (citing *Health of Indigenous Peoples in Africa*, LANCET SERIES ON INDIGENOUS HEALTH, Vol. 367, June 2006, p. 1940); Amnesty International, *Parallel Lives: Roma Denied Rights to Housing and Water in Slovenia* 41 (2011), available at <http://www.amnesty.org/en/news-and-updates/report/slovenia-urged-provide-housing-and-water-its-roma-2011-03-16>; Minority Rights Group, *Iraq’s Minorities: Participation in Public Life* 17 (2011), available at <http://www.minorityrights.org/?lid=11104>.

can lead to poorly designed policies and programs that fail to fulfill the rights of those they seek to benefit. As the international community strengthens its commitment to evidence-based policy, improving the knowledge base about inequalities in the water and sanitation sector becomes more pressing. Improved evidence will lead to better policies, stronger outcomes, and—ultimately—the fulfillment of the rights to water and sanitation.

Box 2. Research on Discriminatory Access to Water and Sanitation

Indigenous Groups: The WHO has reported that “In Rwandan Twa households, the prevalence of poor sanitation and lack of safe, potable water were respectively seven-times and two-times higher than for the national population.”

Roma Communities: Amnesty International has reported that in Slovenia in 2010, “20 to 30 per cent of Roma settlements in the southeastern region did not have access to public or other water supply.”

Minority Religious and Ethnic Groups: Minority Rights Group International has reported in a study on Iraq that “71 per cent [of minorities responding to a survey] said they suffer from the absence of sufficient water in their area.”

This paper will explore options for enhancing attention to equality and non-discrimination in global water and sanitation monitoring. It is intended to provide strategic guidance and support for the mandate of the Special Rapporteur on Water and Sanitation in her work with the Joint Monitoring Programme, in particular through chairing the Working Group on Equality and Non-Discrimination. The paper will provide targeted analysis and recommendations concerning the design of post-2015 rights-sensitive indicators on water and sanitation.

Map of the Paper

The paper proceeds as follows: first, it explores the meaning of equity, non-discrimination, and equality, recommending that definitions enshrined in international human rights law should serve as a basis for analyzing the effectiveness of potential indicators to identify barriers to equality and progress in dismantling discrimination in relation to water and sanitation. Next, the paper briefly sets out the status of the post-2015 agenda for water and sanitation, emphasizing the importance of integrating non-discrimination and equality into the new goal-setting and choice of indicators. The paper then explores how rights elements can be fruitfully integrated into the post-2015 water and sanitation target-setting, indicator choice, and monitoring processes. Here, illustrative proposals are presented for the integration of attention to non-discrimination and equality into the global monitoring mechanisms. Emphasis is placed on recommendations that would not require significant changes in methodology, data sets, or underlying data-gathering tools. A note on methodology: the paper is based on legal analysis, research of secondary literature, and interviews with experts in water and sanitation. To ensure candor, interviewees were assured that comments would not be attributed to specific individuals; for this reason, citations are not provided to interviews.

Non-discrimination and equality under human rights law

Equality and non-discrimination are the bedrock principles of human rights law. The Universal Declaration of Human Rights (“UDHR”) proclaims in article 1 that “All human beings are born free and equal in dignity and rights,” and article 2 explains that in order to achieve this equality, the norm of non-discrimination must be upheld: “Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status. . .”¹¹ Legal obligations to end discrimination and ensure equality are central to all of the major human rights treaties adopted since the UDHR.

For example, the International Covenant on Economic, Social and Cultural Rights (“ICESCR”) specifies that the rights set out in the treaty will be extended “without discrimination of any kind as to race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status,” and the International Covenant on Civil and Political Rights (“ICCPR”) includes an almost identical guarantee.¹² The International Convention on the Elimination of All Forms of Racial Discrimination (“ICERD”) and the Convention on the Elimination of All Forms of Discrimination Against Women (“CEDAW”) include extensive and specific protections against discrimination on the basis of race and sex, respectively.¹³ More recently, the Convention on the Rights of the Child (“CRC”), the International Convention on the Protection of All Migrant Workers and Their Families and the Convention on the Rights of Persons with Disabilities (“CRPD”), all include non-discrimination guarantees.¹⁴

Non-discrimination and equality are linked: under human rights law, States must ensure that individuals and groups do not suffer discrimination, and that they can enjoy full equality.¹⁵ Many human rights treaties explicitly pair non-discrimination clauses with guarantees of equality. The ICCPR, for example, includes, in addition to the non-discrimination provision discussed above, a separate provision specifying that “All persons are equal before the law and

¹¹ Universal Declaration of Human Rights, articles 1 and 2.

¹² International Covenant on Economic, Social, and Cultural Rights art. 2(2), *adopted* Dec. 16, 1966, 999 U.N.T.S. 3 (*entered into force* Jan. 3, 1976) [hereinafter ICESCR]; International Covenant on Civil and Political Rights art. 2(1) *adopted* Dec. 16, 1966, 999 U.N.T.S. 171 (*entered into force* Mar. 23, 1976) [hereinafter ICCPR] (“without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.”) Both conventions also include separate provisions requiring States to ensure that women and men enjoy the treaty-protected rights equally. ICESCR, art. 3; ICCPR, art. 3.

¹³ Convention on the Elimination of All Forms of Racial Discrimination, arts. 1 and 2, *adopted* Dec. 21, 1965, 660 U.N.T.S. 212 (*entered into force* Jan. 4, 1969) [hereinafter ICERD]; Convention on the Elimination of All Forms of Discrimination Against Women arts. 1, 2, and 3, 1240 U.N.T.S. 13 (*entered into force* Sept. 3, 1981) [hereinafter CEDAW].

¹⁴ Convention on the Rights of the Child, arts. 2(1) and 2(2), *adopted* Nov. 20, 1989, 1577 U.N.T.S. 3 (*entered into force* Sept. 2, 1990); International Convention on the Protection of the Rights of All Migrant Workers, art. 1(1), *adopted* Dec. 18, 1990, 2220 U.N.T.S. 3 (*entered into force* July 1, 2003); Convention on the Rights of Persons with Disabilities, art. 1, *adopted* Dec. 13, 2006, 2515 U.N.T.S. 3 (*entered into force* May 3, 2008) [hereinafter CRPD].

¹⁵ International human rights law protects individuals from violations of their rights, but it also requires structural changes where discrimination and inequality impact groups of individuals. Discrimination is experienced in both individual and group-based ways, and human rights law requires that States take steps to dismantle discrimination at all levels.

are entitled without any discrimination to equal protection of the law.”¹⁶ CEDAW makes clear that States must take measures “to ensure the full development and advancement of women, for the purpose of guaranteeing them the exercise and enjoyment of human rights and fundamental freedoms on a basis of equality with men.”¹⁷

However, non-discrimination and equality do not mean equal treatment in all cases. In one of the foundational moments of modern human rights law, Judge Tanaka of the International Court of Justice explained the meaning of equality under international law in his dissenting opinion in the *South West Africa Case*:

The principle of equality before the law does not mean...absolute equality, namely the equal treatment of men [sic] without regard to individual, concrete circumstances, but it means...relative equality, namely the principle to treat equally what are equal and unequally what are unequal...To treat unequal matters differently according to their inequality is not only permitted but required.¹⁸

The same principle has been articulated by the UN Human Rights Committee, which has said that “the enjoyment of rights and freedoms on an equal footing ... does not mean identical treatment in every instance.”¹⁹ In support of its statement, the Committee points out that certain provisions of the ICCPR itself contain distinctions between people, for example article 6(5) which prohibits the death sentence from being imposed on persons below 18 years of age and from being carried out on pregnant women.²⁰

The Human Rights Principles of Non-Discrimination, Substantive Equality, and State Obligations

For the purposes of this paper, three key principles are important: the principle of non-discrimination; the principle of substantive equality; and the concept of State obligations.²¹

The principle of non-discrimination prohibits the less favorable or detrimental *treatment* of one individual or group based on a prohibited ground, such as race, sex, or religion.²² It also proscribes less favorable or detrimental *impact* on one individual or group identified on the basis of a prohibited ground.²³ The principle is binding on all levels and entities of a State: the State

¹⁶ ICCPR, *supra* note 12, at art. 26. It should be noted in addition that article 26 is broader than article 2(1), since article 2(1) requires that the rights set out in the ICCPR must be guaranteed without discrimination, whereas article 26 applies to all fields of State action.

¹⁷ CEDAW, *supra* note 13, at art. 3.

¹⁸ Judge Tanaka (dissenting), *South West Africa case*, International Court of Justice, July 18, 1966, 304-306; available at <http://www.icj-cij.org/docket/files/47/4969.pdf>.

¹⁹ Human Rights Committee, General Comment No. 18, para. 8.

²⁰ *Id.*

²¹ See International Women’s Rights Action Watch-Asia/Pacific, *Equity or Equality for Women? Understanding CEDAW’s Equality Principles* (2009), available at http://www.iwraw-ap.org/publications/doc/OPS14_Web.pdf [hereinafter *Equity or Equality*].

²² For a discussion of this principle, see *id.* at 9-10.

²³ See *Equity or Equality*, *supra* note 21, at 9-10.

must act without discrimination in all spheres and at all times.²⁴ All rights and benefits guaranteed by a State must be extended without discrimination (even if those rights and benefits were not themselves required under human rights law).²⁵

The principle of substantive equality is linked to non-discrimination and central to international human rights law, and should be distinguished from formal equality. Formal equality is an approach to anti-discrimination that limits itself to an examination of the use by a State of distinctions or categories such as race or gender and their legitimacy.²⁶ Formal equality cannot adequately address situations of indirect discrimination, where no overt distinction is made on the basis of a protected category, but where the law or program has a disproportionately negative impact on groups covered by non-discrimination standard. The substantive approach to equality, on the other hand, protects against both situations, applying when a law or practice formally distinguishes between groups, impermissibly treating that group differently, and also extends to situations in which facially neutral laws, policies, or actions have the practical effect—actual results—of disadvantaging a protected group without adequate justification.²⁷ In such situations, human rights law requires the State to dismantle the discriminatory law, policy, or practice, and to take steps to reverse the impact of such discrimination.²⁸ Substantive equality also recognizes that there are times when historical or deeply engrained discrimination will be so intractable that temporary special measures—often called “affirmative action”—are required to ensure the equal participation of all or the redistribution of power and resources to groups subordinated by discrimination.²⁹

The concept of state obligations make clear that the State is responsible for ensuring substantive equality in all realms. The State must ensure equality of opportunity and rectify the impacts of power imbalances based on protected grounds.³⁰ Like other human rights obligations, these duties may be understood to fall into three categories: the duty to respect, to protect, and to fulfill rights. The State must respect rights by ensuring that its own organs, entities, and agents act without discrimination. It must protect rights by adopting effective measures to dismantle discrimination among private actors.³¹ And it must fulfill rights by taking positive steps to ensure the full equality and access to rights by all. The State’s actions in relation to discrimination in the private realm have been helpfully assessed using the due diligence

²⁴ See *Equity or Equality*, *supra* note 21, at 11-13.

²⁵ See Human Rights Committee, General Comment 18. See also INTERIGHTS, NON-DISCRIMINATION IN INTERNATIONAL LAW: A HANDBOOK FOR PRACTITIONERS 19-20 (2011) [hereinafter NON-DISCRIMINATION IN INTERNATIONAL LAW], available at <http://www.interights.org/document/153/index.html>.

²⁶ See Satterthwaite, *Beyond Nannygate: Using the Inter-American Human Rights System to Advance the Rights of Domestic Workers in the United States*, in NEW PERSPECTIVES ON GENDER AND MIGRATION: EMPOWERMENT, RIGHTS, AND ENTITLEMENTS (Nicola Piper, ed., 2007).

²⁷ See *Equity or Equality*, *supra* note 21, at 14. See below for discussion of which justifications are adequate.

²⁸ As one scholar (and UN Special Rapporteur on the Right to Food) has explained, the right to equality “requires that the law does not create any discrimination, either by making distinctions which cannot be reasonably and objectively justified (direct discrimination), or by treating equally situations which require a differentiated treatment (indirect discrimination).” OLIVIER DESCHUTTER, INTERNATIONAL HUMAN RIGHTS LAW 596 (2010).

²⁹ See CEDAW Committee, General Recommendation 25 (explaining the purpose, aim, and context for temporary special measures to ensure women’s equality with men).

³⁰ See *Equity or Equality*, *supra* note 14, at 14.

³¹ See Human Rights Committee, General Comment 28. See also MANFRED NOWAK, U.N. COVENANT ON CIVIL AND POLITICAL RIGHTS: CCPR COMMENTARY (2nd ed., 2005).

standard: States must take proactive, effective steps to achieve the goal of substantive equality in all spheres, and its actions must be undertaken with due diligence.³²

Prohibited Grounds of Discrimination

Human rights treaties specify that individuals belonging to particular groups are protected against discrimination (see Box 3). These individuals and groups include those distinguished or identified on the basis of race, color, sex, language, religion, political or other opinion, national or social origin, property, birth or other status,³³ as well as descent and ethnicity,³⁴ and disability.³⁵ In addition, individuals belonging to numerous groups distinguished by other statuses have been found to be protected implicitly by international human rights law, even though explicit reference to these grounds is not included in human rights treaties. This includes individuals identifiable by gender³⁶ and gender identity,³⁷ sexual orientation,³⁸ age,³⁹ and marital and family status.⁴⁰ Further, human rights law recognizes that discrimination is often highly contextual and can change over time. International treaties include protection for individuals and groups identified on the basis of “other status,” allowing for the evolution of protections to match evolving discrimination. For example, numerous human rights bodies have interpreted “other status” to include health status in contexts where HIV-positive individuals face discrimination,⁴¹ and economic and social situation where those in poverty or homelessness suffer marginalization.⁴²

³² See CEDAW Committee, General Recommendation 19 at ¶ 8 (drawing on the principle of due diligence under international law and the obligation to prevent, investigate, punish, and provide compensation for acts of violence, to find that the protections afforded by CEDAW are not limited to protection against government action, but extend to private acts as well). See also Report of the Special Rapporteur on Violence Against Women, “The Due Diligence Standard as a Tool for the Elimination of Violence Against Women,” E/CN.4/2006/61, 20 January 2006. The CERD Committee has also used the due diligence standard in assessing State actions to end discriminatory violence based on race. See *L.K. v the Netherlands*, no. 4/1991, 16 March 1993.

³³ International Covenant on Civil and Political Rights, *supra* note 12, at arts. 2(1) and 2(2). See CESCR, General Comment 20 at ¶ 2.

³⁴ ICERD, *supra* note 13, at article 1(1).

³⁵ CRPD, *supra* note 14, at art. 1.

³⁶ Protections for gender have been interpreted as implied by the explicit protections included in treaties on the basis of sex. See NON-DISCRIMINATION IN INTERNATIONAL LAW, *supra* note 25, at 122-138.

³⁷ Protections for gender identity have been interpreted as implied by the explicit protections included in treaties on the basis of sex as well as protections for private and family life. See NON-DISCRIMINATION IN INTERNATIONAL LAW, *supra* note 25, at 137-138.

³⁸ Protections for sexual orientation have been interpreted as implied by the explicit protections included in treaties on the basis of sex as well as protections for individuals with “other status” and those for private and family life. See NON-DISCRIMINATION IN INTERNATIONAL LAW, *supra* note 25, at 138-139.

³⁹ Protections on the basis of age have been interpreted as implied by the explicit protections included in treaties on the basis of protections for individuals with “other status.” See NON-DISCRIMINATION IN INTERNATIONAL LAW, *supra* note 25, at 203-206.

⁴⁰ Protections on the basis of marital or family status have been interpreted as implied by the explicit protections included in treaties on the basis of protections for individuals with “other status.” See NON-DISCRIMINATION IN INTERNATIONAL LAW, *supra* note 25, at 212-217.

⁴¹ See CESCR, General Comment 20 at ¶ 33.

⁴² See CESCR, General Comment 20 at ¶ 35.

Box 3: Prohibited Grounds of Discrimination Under Human Rights Law

- | | |
|-----------------------------------|---------------------------------|
| ➤ Race or colour | ➤ Ethnicity |
| ➤ Sex, gender and gender identity | ➤ Sexual Orientation |
| ➤ Language | ➤ Disability |
| ➤ Religion | ➤ Age |
| ➤ Political or other opinion | ➤ Marital and family status |
| ➤ National or social origin | ➤ Health status |
| ➤ Property or birth | ➤ Economic and social situation |
| ➤ Descent | ➤ Other status |

Not all distinctions, even those made on the basis of protected categories, are impermissible under human rights law, only those that are considered unjust. Drawing on the definition of discrimination set out in CEDAW⁴³ and ICERD⁴⁴ and adopted by the UN Human Rights Committee⁴⁵, the UN Committee on Economic, Social, and Cultural Rights has defined discrimination as:

any distinction, exclusion, restriction or preference or other differential treatment that is directly or indirectly based on the prohibited grounds of discrimination and which has the intention or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of [ICESCR] rights.⁴⁶

Distinctions on the basis of protected categories are suspect, meaning that they must be carefully assessed. As a general matter, distinctions on these grounds for which there are not objective and reasonable justifications, and which are not proportionate to the legitimate aims of the policy under examination will be deemed to be discriminatory and thus impermissible.⁴⁷ For example, government policies extending insurance for prenatal care to women and not men are not discriminatory because they can be objectively and reasonably justified (women alone possess the biological capacity to become pregnant) and they are proportionate to legitimate policy aims (such benefits accrue to women while pregnant, with the aim of ensuring healthy mothers and children). On the other hand, government policies that restrict women from occupations that involve the use of heavy machinery are discriminatory because although they may arguably be reasonably justified as being aimed at protecting women's reproductive capacities, such justifications are neither objective, since they are not based on scientific grounds; nor are they

⁴³ CEDAW defines discrimination against women as “any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment, or exercise by women” of their human rights. CEDAW, *supra* note 13, at art. 1.

⁴⁴ ICERD defines racial discrimination as “any distinction, exclusion, restriction or preference based on race, colour, descent, or national or ethnic origin which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise” of human rights. ICERD, *supra* note 13, at art. 1(1).

⁴⁵ See Human Rights Committee, General Comment 18 at ¶¶ 6-7.

⁴⁶ See CESCR, General Comment 20 at ¶ 7.

⁴⁷ See Human Rights Committee, General Comment 18 at ¶ 13; CERD, General Recommendation 14, ¶ 2. See also INTERIGHTS, NON-DISCRIMINATION IN INTERNATIONAL LAW, *supra* note 25, at 114-115 (2011).

proportionate, since they are not narrowly tailored but are instead overly broad and over-protective. As such, these measures are discriminatory, restricting women's autonomy and self-determination in favor of a social role they have inherited. However, as discussed above, positive measures taken by governments to rectify inequalities are not considered discriminatory by human rights law, even though they target particular individuals and groups on the basis of a protected category. In the context of disability, for example, non-discrimination *requires* differential treatment where necessary in the form of "reasonable accommodation," measures to ensure the full participation and agency of persons with disabilities.⁴⁸

Equity, Equality and Non-Discrimination

In the water and sanitation sector, the terms equity and equality have sometimes been used interchangeably. This section examines the meaning of each term, suggesting that equality, separate from equity, is an essential term and concept for the task of the Working Group.

What is Equity?

Equity is commonly understood to mean "justice" or "fairness."⁴⁹ In legal settings, the term is frequently used to refer to a type of decision-making that "remedies the injustice" resulting from blind application of a rule by taking individual circumstances and conditions into account.⁵⁰ Thus, equity is something that is beyond or outside of the law. It is also a very malleable term, left to the subjective sense of "fairness" of a given decision-maker or analyst. For this reason, the term carries real risks from a human rights perspective. As UN OSAGI explains in relation to gender:

Gender equality is the preferred terminology within the United Nations, rather than gender equity. Gender equity denotes an element of interpretation of social justice, usually based on tradition, custom, religion or culture, which is most often to the detriment to women. Such use of equity in relation to the advancement of women is unacceptable. During the Beijing conference in 1995 it was agreed that the term equality would be utilized.⁵¹

In a similar vein, the UN Committee on the Elimination of Discrimination Against Women has criticized States for using the terms "equity" and "equality" interchangeably, reminding them that States have treaty obligations to dismantle discrimination and advance *equality*, not equity.⁵²

⁴⁸ CRPD arts. 2, 5(3).

⁴⁹ See, for example, P. Braveman & S. Gruskin, *Defining Equity in Health*, 57 JOURNAL OF EPIDEM. COMMUNITY HEALTH 254 (2003).

⁵⁰ John Tasioulas, *Justice, Equity and Law*, in ROUTLEDGE ENCYCLOPEDIA OF PHILOSOPHY (E. Craig, ed., 1998), available at <http://www.rep.routledge.com/article/T006SECT2>.

⁵¹ UN OSAGI, "Important Concepts Underlying Gender Mainstreaming," available at <http://www.un.org/womenwatch/osagi/pdf/factsheet2.pdf>.

⁵² CEDAW Committee, *Report of the Committee on the Elimination of Discrimination against Women*, U.N. Doc. A/57/38 (2002), at ¶ 183 (Guatemala); *Concluding Comments of the Committee on the Elimination of Discrimination against Women: Nicaragua*, U.N. Doc. No. CEDAW/C/NIC/CO/6 (2007), at ¶ 16; *Concluding*

What's Missing from Equity? A Human Rights Perspective

While equity may denote justice to many, it also carries with it the possibility of diluting the rights claims of those who suffer inequality as a result of discrimination. Leaving discrimination out of the equity picture can distort understanding. In its *World Development Report 2006: Equity and Development*, the World Bank described equity as “the quest for a situation in which personal effort, preferences, and initiative—rather than family background, caste, race, or gender—account for the differences among people’s economic achievements.”⁵³ To construct such a situation, however, requires the dismantling of discrimination, which the World Bank neutrally described as “family background, caste, race, or gender,” eliding the fact that it is discrimination and not the backgrounds themselves that create disparities much of the time.

Furthermore, some understandings of the term “equity” have the potential to directly undermine human rights. In 2006, the World Bank described equity as a goal that was subject to significant limits. Making the instrumental argument that equity was good because it would advance development most of the time, the Bank also cautioned that sometimes equity may be too expensive:

In other cases, however, expanding the opportunity sets for the disadvantaged may require more costly redistribution. To finance better-quality schooling for those who have the least educated parents, and who attend the worst schools, it may be necessary to raise taxes on other people. The basic economic insight that such taxation distorts incentives remains valid. Such policies should be implemented only to the extent that the (present) value of the longrun benefits of greater equity exceed the efficiency costs of funding them.⁵⁴

Under human rights law, it is impermissible to subject a human rights claim to a cost-benefit analysis in such terms. Although expenditure and resources are often relevant to the human rights equation through rules concerning, *inter alia*, progressive realization and the use of the maximum available resources, such issues will never be dispositive in the face of a valid claim of human rights. If subjected to an equity framework only, as understood by the World Bank in 2006, human rights would be subject to an assessment of their instrumental value and through cost/benefit analysis. Where equity would advance growth and development, it would be embraced. But where equity was seen as “too expensive”—such as in situations where remote ethnic communities may demand to be connected to water and sanitation services—those rights may be viewed as expendable.

As one scholar writing in the health field explains:

[I]n situations where a particular group of persons — for example, women, or people of a lower caste — is especially disenfranchised, a clear call for equality rather than equity may be essential, because some definitions of equity may leave

comments of the Committee on the Elimination of Discrimination against Women: Vanuatu, U.N. Doc. No. CEDAW/VUT/CO/3 (2007), at ¶ 15.

⁵³ WORLD BANK, *WORLD DEVELOPMENT REPORT 2006: EQUITY AND DEVELOPMENT* 74 (2006).

⁵⁴ *Id.*, at 22 (internal citation omitted).

too much room for interpretation. For example, more enfranchised groups may argue that the treatment of a disenfranchised group is “equitable,” given the latter’s best interests and proper role in society.⁵⁵

In 2012, the World Bank embraced equality, not only equity, as centrally important to development. Discussing gender inequality, the *World Development Report 2012: Gender Equality and Development* explains that gender inequality matters for two reasons:

First, gender equality matters intrinsically, because the ability to live the life of one’s own choosing and be spared from absolute deprivation is a basic human right and should be equal for everyone, independent of whether one is male or female. Second, gender equality matters instrumentally, because greater gender equality contributes to economic efficiency and the achievement of other key development outcomes.⁵⁶

The human rights concept of equality “denaturalize[s] the inequalities that pervade our societies and our world, whether based on gender, caste, race, or some other characteristic.”⁵⁷

Combining Equity and Equality

Although equity can be a problematically unfixed, variable term, it may have a useful role to play in improving the monitoring of the human rights elements of water and sanitation if combined with equality and non-discrimination. This is because the term “equity” has been used in relation to water and sanitation to underscore the importance of extending water and sanitation to everyone—including the poorest of the poor.⁵⁸ Development practitioners, water experts, and sanitation specialists frequently use the term to highlight the need to remove economic barriers to accessing water and sanitation.⁵⁹ Human rights and water sector professionals appear to agree that “equity” or “equality” remind us of the imperative to focus on universal access to water and sanitation—not only improvements for some sectors or groups.

⁵⁵ Paula Braveman, *Social Conditions, Health Equity, and Human Rights*, 12 HEALTH AND HUMAN RIGHTS: AN INTERNATIONAL JOURNAL 1214 (2010).

⁵⁶ WORLD BANK, WORLD DEVELOPMENT REPORT 2012: GENDER EQUALITY AND DEVELOPMENT 3 (2012).

⁵⁷ Alicia Ely Yamin, *Shades of Dignity: Exploring the Demands of Equality in Applying Human Rights Frameworks to Health*, 11 HEALTH AND HUMAN RIGHTS: AN INTERNATIONAL JOURNAL 1, 3 (2009).

⁵⁸ See, for example, UNDP, HUMAN DEVELOPMENT REPORT 2006: BEYOND SCARCITY: POWER, POVERTY, AND THE GLOBAL WATER CRISIS 11 (2006). See also UNDP International Policy Centre for Inclusive Growth, *Poverty in Focus: Equitable Access to Basic Utilities: Public versus Private Provision and Beyond*, No. 18 (Aug. 2009) (equity as equal access to utility despite income inequalities). A similar meaning is found in the health sector, where “equity” has been used to refer to “the ethical principle of distributive justice,” which entails “a commitment to reduce social inequalities. Paula Braveman, *Social Conditions, Health Equity, and Human Rights*, 12 HEALTH AND HUMAN RIGHTS: AN INTERNATIONAL JOURNAL 1214 (2010).

⁵⁹ For example, see discussion of the “equity approach” being used in the Performance Assessment System in India, see JMP, “Report of the JMP Technical Task Force Meeting: Monitoring Challenges in Urban Settings,” 6-9 June 2011, 3 [hereinafter “Task Force Meeting Report”]. See also Robert Bos & Clarissa Brocklehurst, Presentation at World Water Week –Stockholm–September 9, 2010.

The UN Committee on Economic, Social and Cultural Rights used the term in a similar way in General Comment 14 on the right to health, where it called attention to the need to dismantle economic barriers: “Equity demands that poorer households should not be disproportionately burdened with health expenses as compared to richer households.”⁶⁰

Viewed through a human rights lens, equity can be fruitfully paired with equality—the legally binding obligation to ensure that everyone—regardless of status, race, sex, class, caste, or any other factor—has access to safe water and sanitation.⁶¹ Embracing both equity and equality provides an important political foothold by emphasizing issues in areas where traditionally human rights law has been less robust—especially in relation to wealth inequalities and global disparities—while also reminding States that it is their legal obligation to dismantle discrimination.⁶² For this reason the twin human rights of non-discrimination and equality must be embraced as an essential part of the equity agenda.⁶³

Equality and Non-Discrimination in the Post-2015 Agenda for Water and Sanitation: The Berlin Consensus

Discussions aimed at crafting a post-2015 agenda represent an unprecedented opportunity to emphasize the centrality of tackling discrimination to improve access to water and sanitation. As the Special Rapporteur on Water and Sanitation has explained:

Perhaps the most frequently voiced concern about the Millennium Development Goals is that, taken on their face, they may facilitate aggregate human development progress at the expense of the most marginalized populations, thereby potentially exacerbating underlying inequalities. In fact, it would be possible for a country to be in full compliance with the Goals regarding access to water and sanitation without having extended access to any person belonging to the lowest wealth quintile. Whereas the Millennium Declaration refers explicitly in paragraph 23 to “equitable access”, this concern for equity is not reflected in the Millennium Development Goals . . . Non-discrimination and equality are not only instrumentally important in the context of development; they are binding

⁶⁰ CESCR, General Comment 14 at ¶ 12(b)(iii).

⁶¹ In the health field, one scholar has argued that combining the concept of equity with human rights requires “leveling up”—consistently improving the situation of the disadvantaged, rather than reducing the situation of the privileged. In the water and sanitation sector, this would help specify that goals aimed at reducing disparities can only be achieved by increasing, for example, access to piped water by disadvantaged groups and not by reducing access by the most privileged. *See Braveman, supra note 58.*

⁶² This will require monitoring tools designed to measure wealth inequalities, such as wealth quintile analysis, discussed *infra*.

⁶³ The Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation has emphasized that: While human rights embody legally binding obligations and need no instrumental justifications, there is increasing evidence that human rights-based approaches cannot only promote inclusive development processes, but also help to produce more equitable and sustainable development results. Enforceable socio-economic rights claims have been shown to have large scale life-saving impacts.

Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, Report to the General Assembly, 6 August 2010, at ¶ 10 (internal citations omitted).

human rights principles reflected in international human rights treaties. Development strategies based on the Millennium Development Goals that pick only the “low-hanging fruit” risk perpetuating and even reinforcing existing inequalities, frustrating sustainable development objectives and violating international human rights standards.⁶⁴

This concern is widely shared by those working in the water and sanitation sectors. At the First Consultation on Post-2015 Monitoring of Drinking-Water and Sanitation held in Berlin in May 2011, participants reached consensus on the key elements that should form the basis of the post-2015 architecture, agreeing that “the attainment of universal coverage through at least basic access to both drinking-water and sanitation services should be reflected in the future targets.”⁶⁵ Indeed, among participants, there was “almost unanimous agreement that the future target should be ‘Universal access to sustainable and equitable drinking-water and sanitation Services.’”⁶⁶ This consensus largely mirrors the recommendation by the Special Rapporteur that the post-2015 target and indicators should explicitly encompass the various elements of the human rights to water and sanitation:

Accountability begins with reliable, relevant and adequate data. It is critical to supplement the data sources used by the Joint Monitoring Programme with additional data sets that relate specifically to human rights standards. Indicators should reflect the human rights criteria of availability, safety, acceptability, accessibility (including reliability) and affordability. Generating such additional data sets might be viewed as a considerable opportunity cost, to the extent that these funds could otherwise be dedicated to water or sanitation programmes directly. But in the view of the independent expert, the “opportunity” far outweighs the “cost”, not only in terms of focusing interventions on key bottlenecks and informing policymaking in the water and sanitation sectors, but also the very substantial multiplier effects this would bring for health, education, gender equality, education, nutrition and related human rights and Millennium Development Goals.⁶⁷

Thus, non-discrimination and equality are by no means the only relevant human rights elements that should be integrated into the post-2015 water and sanitation target and its indicators. All five of the normative criteria of the rights—availability, quality, acceptability, accessibility, and affordability—are relevant to attaining universal access.⁶⁸ Furthermore other cross-cutting principles such as participation and accountability must be taken into account in the development of a post-2015 development agenda. Work is proceeding separately in the Working Groups on

⁶⁴ Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, Report to the General Assembly, 6 August 2010, at ¶ 36 (internal citations omitted).

⁶⁵ Report of the First Consultation on Post-2015 Monitoring of Drinking-Water and Sanitation held in Berlin, 3-5 May 2011, at 43 [hereinafter “Berlin Consultation Report”].

⁶⁶ *Id.* at 2.

⁶⁷ Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, Report to the General Assembly, 6 August 2010, at ¶ 35.

⁶⁸ See “Session keynote: The human right to water and sanitation: what, why, and by whom?”, Berlin Consultation Report, *supra* note 65, at 29-30.

Water, Sanitation, and Hygiene, respectively, to consider how to address quality, affordability and other criteria in the post-2015 architecture. Non-discrimination and equality have been directly embraced, however, as especially relevant to identifying failures, lags, and reversals in water and sanitation improvement. For this reason, non-discrimination and equality need to be directly integrated into the monitoring activities created for the post-2015 target and indicators.

With respect to monitoring, the Berlin meeting concluded as follows:

For monitoring future global development targets: to keep basic access in the centre of global targets, with special attention to the human rights criteria, and to ensure consistency with current monitoring; to explore the inclusion of more water supply and sanitation indicators; to explore different standards for rural and urban areas; and **to propose indicators for capturing the equity dimension.**

For more detailed sector and human rights monitoring: to expand the set of indicators using a number of service level and human rights criteria - indicators that would be collected and monitored partially through strengthening the existing national water sector monitoring infrastructure and operations in the rural and urban sub-sectors, and partially through additional human rights monitoring. **Non-discrimination and equity would become central components of monitoring.** A large number of expectations for indicators referred to above invites the working groups to rise to the challenge of proposing indicators that respond best to these expectations.⁶⁹

Thus, emerging from Berlin, the task is clear: indicators must be identified that can help elucidate “the equity dimension” of access to water and sanitation through global monitoring. For sector-specific and human rights monitoring, “non-discrimination and equity” should become “central components of monitoring.” The remainder of this paper examines how non-discrimination and equality might be built into global monitoring processes. First, however the paper sets our existing monitoring tools and indicators for water and sanitation.

Measuring Water and Sanitation: Existing Monitoring Tools and Indicators

Two UN entities are charged with monitoring the MDG Target on water and sanitation: the WHO/UNICEF-led Joint Monitoring Programme for Water and Sanitation, and the UN-Water/WHO’s Global Annual Assessment of Sanitation and Drinking-Water (GLAAS). JMP was created in 1990 to provide capacity-building services to national water and sanitation actors and to provide global monitoring aimed at providing policy-makers with needed information about water and sanitation.⁷⁰ Once the MDGs were adopted, it began tracking progress toward the water and sanitation target, publishing bi-annual assessment reports and periodic thematic reports. GLAAS was piloted in 2008 with the aim of providing enhanced information about the resources going into water and sanitation services, State policies and institutions in the sector,

⁶⁹ Berlin Consultation Report, *supra* note 65, at 2.

⁷⁰ WHO/UNICEF, *Global Water Supply and Sanitation Assessment 2000 Report v* (2000).

and investments and foreign assistance targeted to water and sanitation.⁷¹ Its first full report was published in 2010 and covered 42 countries and its second report will be issued in 2012.⁷² GLAAS was designed to be complementary to JMP, presenting data about inputs and outputs that can be read alongside JMP-generated reports on outcomes. GLAAS is aimed at “senior-level policy-makers.”⁷³ Because the focus of the Working Group is on JMP, the next section provides an overview of JMP’s work, but does not include such detail about GLAAS.

Joint Monitoring Programme

In its early years, JMP relied on data gathered from water utilities, regulators, and other providers, as well as information reported through a yearly questionnaire completed by ministries.⁷⁴ The pre-MDG JMP “had no standard definitions of access, it suffered from non-comparability of data and it was not independently verifiable.”⁷⁵ With the adoption of the Millennium Development Goals, the JMP took on a heightened stature in the sector and was able to greatly improve its methods by using more reliable data sets, creating standard definitions, and using linear regressions.⁷⁶

Box 4: Key Household Surveys at a Glance

Demographic and Health Surveys (DHS)

Nationally-representative household surveys funded by the U.S. Agency for International Development (USAID) that provide data for a wide range of monitoring and impact evaluation indicators in the areas of population, health, and nutrition. Sample sizes range from 2,000 to 30,000 households [per country] and surveys are conducted in over 75 countries approximately every 5 years.

Multiple Indicator Cluster Surveys (MICS)

Since the mid-1990s, UNICEF’s international household survey initiative MICS has enabled over 60 countries to produce statistically sound and internationally comparable estimates of a range of indicators in the areas of health, education, child protection and HIV/AIDS.

World Health Surveys (WHS)

WHO has developed and implemented a Survey Programme and a World Health Survey to compile comprehensive baseline information on the health of populations and on the outcomes associated with the investment in health systems; baseline evidence on the way health systems are currently functioning; and, ability to monitor inputs, functions, and outcomes.

Living Standards Measurement Surveys (LSMS)

The Living Standards Measurement Study is an on-going research initiative of the World Bank generating policy-relevant household level data that provides an increasingly broad range of technical assistance as methods and technology continue to improve.

Text in this box is reproduced from JMP, <http://www.wssinfo.org/definitions-methods/data-sources/>

⁷¹ WHO/UN-Water, *UN-Water Global Annual Assessment of Sanitation and Drinking-Water: Targeting Resources for Better Results 4* (2010).

⁷² *Id.*, foreword.

⁷³ *Id.*

⁷⁴ Remarks of Tessa Wardlaw, Berlin Consultation Report, 18.

⁷⁵ *Id.*

⁷⁶ *Id.*

In 2000, JMP shifted from using provider-based data from utilities, water agencies, and ministries to user-based data, based on household surveys.⁷⁷ Survey data from standard household surveys had only become widely available in the late 1980s and 1990s, and was seen as an enormous improvement over provider-based data, which did not capture an accurate picture of the use of water and sanitation facilities, as distinct from their formal existence.⁷⁸ Since 2002, survey and census data have made up the only primary source of data used by JMP.⁷⁹

Data are drawn from standardized surveys and censuses, including UNICEF's Multiple Indicator Cluster Surveys ("MICS"), USAID-funded Demographic and Health Surveys ("DHS"), the World Bank's Living Standards Measurement Study ("LSMS") surveys and Core Welfare Indicator Questionnaires ("CWIC"), the WHO's World Health Surveys ("WHS"), and Household Budget Surveys ("HBS"). JMP now includes data from 729 nationally representative household surveys and 152 Censuses (see Box 4).⁸⁰ JMP monitors 180 countries, up from about 70 in 1992.⁸¹

JMP analyzes data from these sources with two proxy indicators: "use of an improved water source" and "use of improved sanitation facilities" to track progress toward the MDG target.⁸² JMP has defined specific sources of water as improved and others as unimproved,⁸³ and particular types of sanitation facilities as improved and others as unimproved.⁸⁴ These definitions and the methods for estimating coverage have been adjusted over time as information expanded and improved.⁸⁵ In addition to providing these coverage indicators, JMP publishes national and global trend analyses. Relevant to understanding equality and equity, JMP disaggregates its findings by rural and urban areas. As discussed earlier, in 2004, it undertook trend analysis by wealth quintiles, and in 2010, the JMP report included extensive analysis of data disaggregated by wealth quintiles.⁸⁶ In brief, "[th]e JMP has greatly expanded since its

⁷⁷ WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, *Meeting the MDS Drinking Water and Sanitation Target: A Mid-Term Assessment of Progress 22* (2004).

⁷⁸ For example, provider-based data does not account for a wide variety of user-built, local, and informal mechanisms for water and sanitation *Id.*

⁷⁹ Remarks of Tessa Wardlaw, Berlin Consultation Report, *supra* note 65, at 18.

⁸⁰ See JMP, <http://www.wssinfo.org/definitions-methods/data-sources/>.

⁸¹ Remarks of Tessa Wardlaw, Berlin Consultation Report, *supra* note 65, at 18.

⁸² *See id.*

⁸³ In 2004, improved sources included: household connection, public standpipe, borehole, protected dug well, protected spring, and rainwater collection. Unimproved sources included: unprotected well, unprotected spring, rivers or ponds, vendor-provided water, bottled water (for quantity reasons), and tanker truck water. WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, *Meeting the MDGs Drinking Water and Sanitation Target: A Mid-Term Assessment of Progress 4* (2004).

⁸⁴ In 2004, improved sources included: connection to a public sewer, connection to a septic system, pour-flush latrine, simple pit latrine, and ventilated pit latrine. Unimproved facilities included: public or shared latrine, open pit latrine, and bucket latrine. WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, *Meeting the MDGs Drinking Water and Sanitation Target: A Mid-Term Assessment of Progress 4* (2004).

⁸⁵ For example, JMP changed its methods for defining certain types of latrines as improved and for estimating coverage when it gained access to additional survey data after 2001. This led to a revision of the global sanitation estimate: in 2004, JMP reported that its previous estimate that 2.4 billion people were without access to improved sanitation had been an underestimate: the new figure was 2.6 billion people. *Id.* at 15.

⁸⁶ Remarks of Tessa Wardlaw, Berlin Consultation Report, *supra* note 65, at 18-19.

inception in 1990. . . International and national development partners recognize the JMP reports as the main source of reference data to support their decision-making.”⁸⁷

Making Existing Tools More Rights-Sensitive: Designing Rights-Sensitive Indicators for Global Monitoring of Water and Sanitation

The post-2015 goals, targets, and indicators must be explicitly designed to reveal where more effort is needed, where efforts have failed, and how discrimination and marginalization are having the most intense effects. But to do so, the targets and indicators must attend to the processes of discrimination and not just aggregate outcomes. Indicators should not just measure progress made at the level of whole populations, but also reveal who is being left behind. Together, equity and equality demand that:

- MDG indicators need to be able to measure the different levels of access to water and sanitation that populations within a given country enjoy as a result of discrimination. This means that disaggregation on grounds of prohibited discrimination will be especially important. Due to the embedded nature of discrimination, it also means that different types of disaggregation may be more relevant for some countries than others.
- Disaggregation by grounds of discrimination will not be enough, however. Human rights law reminds us that discrimination may not always be observable through tools that capture differences along obvious axes of discrimination such as race, gender, or disability status. Sometimes hidden forms of discrimination can be observable when data are made available along fault lines of economic disadvantage. Data presented in quintiles are especially helpful in this connection, and the most attention should go to those at the bottom.

At the same time, it was emphasized in Berlin that “[an] improved system of monitoring should be purpose-driven, universal (relevant to all), comparable internationally but harmonized with country systems, easily understood and communicated, internally consistent, compelling and cheap, and should reward progress (progressive realization).”⁸⁸ Keeping these criteria in mind, this section of the paper will first distinguish human rights monitoring indicators from rights-sensitive development indicators. It will then set out in more detail recommendations for making JMP more rights-sensitive.

Brief Note: Distinguishing Human Rights Monitoring Indicators and Rights-Sensitive Development Indicators

Before examining how the global monitoring indicators for water and sanitation could be made more rights-sensitive, it is important to place clear boundaries around this effort. In recent years, there has been an explosive expansion of efforts to use indicators—and quantitative data more

⁸⁷ *Id.*

⁸⁸ Berlin Consultation Report, *supra* note 65, at 16.

broadly—as human rights monitoring tools.⁸⁹ Toward this end, UN treaty bodies and the UN Office of the High Commissioner for Human Rights, civil society organizations, and researchers have designed indicators aimed at assessing compliance with legal obligations under human rights law.⁹⁰ Such indicators can help to identify potential violations of a right, elucidate the extent of fulfillment of a right among a given population, provide information about the extent to which a right is being progressively realized, and identify trends toward or away from improved right compliance over time. In the context of water and sanitation, NGO efforts have been especially promising. Virginia Roaf, Ashfaq Khalfan, and Malcolm Langford developed a framework for right to water indicators for the Centre on Housing Rights and Eviction (COHRE), Brot für die Welt, and the Heinrich Böll Foundation in 2006 (“COHRE Indicators Report”).⁹¹ Considering available data alongside the normative criteria of the right to water, the framework set out potential indicators that could be used in monitoring the various aspects of the right to water.⁹² It included an assessment of whether existing data sources could be used, and the degree to which relevant data were disaggregated.⁹³

The work of these human rights organizations and bodies may be helpful in informing the work of the Working Group. There are significant differences, however, between the aim and purpose of human rights monitoring indicators such as those designed by the OHCHR or COHRE and indicators to be used in monitoring achievement of global development goals. Human rights monitoring indicators are designed to closely relate to specific legal norms. As such, they must reflect and effectively measure all elements of a right, as well as needing to integrate the cross-cutting human rights norms such as participation. In this way, human rights *monitoring* indicators should be flexible enough to be contextually relevant, and to be responsive to the goals and participation of rights-holders.

On the other hand, the process to integrate rights elements into the post-2015 water and sanitation target and indicators seeks to make these development goals and metrics rights-sensitive rather than transforming them fully into human rights monitoring tools. The distinction is important because it calls attention to the limits on the remit of the Working Group: it need not

⁸⁹ For a discussion of this development, see AnnJanette Rosga & Margaret Satterthwaite, *Measuring Human Rights: U.N. Indicators in Critical Perspective*, in GOVERNANCE BY INDICATORS: GLOBAL POWER THROUGH QUANTIFICATION AND RANKINGS (Davis et al, eds., forthcoming 2012).

⁹⁰ In the last several years, a wide variety of international organizations, including the U.N. Development Fund for Women (UNIFEM), the United Nations Children’s Fund (UNICEF), as well as the Office of the High Commissioner for Human Rights and several U.N. Special Rapporteurs, have undertaken human rights indicators projects. International NGOs including the Centre on Housing Rights and Evictions (COHRE) and the American Association for the Advancement of Science (AAAS) have created frameworks of their own for such indicators. Finally, national and regional human rights institutions such as the Danish Institute for Human Rights, the German Institute for Human Rights, and the Inter-American Commission on Human Rights have undertaken work on human rights indicators. For a discussion of numerous human rights indicators initiatives, see Rajeev Malhortra & Nicolas Fasel, *Quantitative Human Rights Indicators: A Survey of Major Initiatives* (Mar. 3, 2005), available at <http://www.jus.uio.no/forskning/grupper/humrdev/indicators.html>.

⁹¹ Virginia Roaf, Ashfaq Khalfan, and Malcolm Langford/Centre on Housing Rights and Eviction, Brot für die Welt, and the Heinrich Böll Foundation, *Monitoring Implementation of the Right to Water: A Framework for Developing Indicators*, Global Issues Paper No. 14 (2005) [hereinafter COHRE Indicators Report].

⁹² *Id.*

⁹³ *Id.* at 45-57 (Appendix 1: Matrix of Potential Indicators for the Right to Water).

design indicators that will embody the fullness of the rights to water and sanitation in all their aspects. It also underscores the ambitions of the plan: the Working Group needs to identify or design indicators that will shed light on discrimination and equality issues while also remaining feasible, affordable, and implementable in the near term.

Disaggregation by Prohibited Grounds of Discrimination

A distinctive feature of the human rights framework is the principle of non-discrimination, requiring looking beyond average attainments and disaggregating datasets according to prohibited grounds of discrimination.⁹⁴

All human rights indicators projects argue for the signal importance of disaggregating data by prohibited grounds of discrimination in order to allow for identification of disparate impacts, improvement or deterioration in status over time, and comparison of dominant and minority groups under the norms of equality and non-discrimination.⁹⁵ As the 2008 *OHCHR Report on Indicators* suggests:

In capturing the norm of non-discrimination and equality . . . a starting point is to seek disaggregated data by prohibited grounds of discrimination such as sex, disability, ethnicity, religion, language, social or regional affiliation of people. For instance, if the indicator on the proportion of children enrolled in primary school, given that primary education should be available free of costs, is broken down by ethnic groups or religious minorities for a country, it would be possible to capture some aspect of discrimination faced by the concerned groups or minorities in accessing education and enjoying their right to education in that country.⁹⁶

In General Comment 15, the UN Committee on Economic, Social, and Cultural Rights underscored the need for disaggregated data in monitoring the right to water:

To assist the monitoring process, right to water indicators should be identified in the national water strategies or plans of action. . . . Indicators should address the different components of adequate water (such as sufficiency, safety and acceptability, affordability and physical accessibility), be disaggregated by the

⁹⁴ Berlin Consultation Report, *supra* note 65, at 10.

⁹⁵ See, for example, OHCHR, *Report on Indicators for Promoting and Monitoring the Implementation of Human Rights*, ¶ 10, U.N. Doc. HRI/MC/2008/3 (June 6, 2008) (“In capturing the norm of non-discrimination and equality in the selection of structural, process and outcome indicators, a starting point is to seek disaggregated data by prohibited grounds of discrimination such as sex, disability, ethnicity, religion, language, social or regional affiliation of people”) [hereinafter *2008 Report on Indicators*].

⁹⁶ *2008 Report on Indicators*, *supra* note 95, at ¶ 10. Similarly, the COHRE Indicators Report, *supra* note 91, at 18 noted: “One of the most important implications of reviewing indicators from a human rights perspective is whether the indicator is disaggregated, that is, does it break up the relevant data according to significant variables, such as gender, ethnicity, race, religion, nationality, and social origin.” See also Report of the United Nations High Commissioner for Human Rights to the Economic and Social Council, Geneva 4-29 July 2011 ¶ 24 (E/2011/90) (emphasizing the ability of disaggregated data to reveal protection gaps of seemingly neutral policies, *available at* <http://www.ohchr.org/EN/Issues/Indicators/Pages/default.aspx>).

prohibited grounds of discrimination, and cover all persons residing in the State party's territorial jurisdiction or under their control. . .⁹⁷

This section considers the issue of disaggregation as follows: for each of several prohibited grounds of discrimination, relevant human rights protections will be identified; past work by JMP on the issue will be pointed out; the availability of disaggregated data in leading sources and the feasibility of utilizing such data will be addressed; challenges and possibilities will be set out; and recommendations will be made.

It should be noted that the grounds of discrimination discussed in this section are illustrative only. The grounds are: sex/gender, disability, race/ethnicity, nationality, religion, language, and status as a slum dweller. These grounds were chosen for several reasons. Sex/gender was chosen because sex discrimination is a universal phenomenon and the sector has been committed to addressing it through its monitoring efforts for some time. Race/ethnicity, caste, language, national origin, and religion were selected because these forms of discrimination are among the most ubiquitous and well-understood forms of discrimination, though these are also areas where thorny issues concerning the proper use of data and cross-national comparability arise. These grounds are discussed together because the way the major surveys collect data about them is almost identical. Disability is a focus because disability rights advocates have emphasized the importance of the right to water and sanitation for persons with disabilities, and because the issues surrounding data availability in relation to disability are illustrative of challenges that might arise when addressing additional forms of discrimination. Status as a slum dweller is discussed because difficulty accessing water and sanitation is integral to the very definition of slums, and the sector has recognized that attention to the specific challenges of slum-dwellers is an important issue for equitable access. Finally, a brief discussion is included concerning other statuses, using sexual orientation as an example. It is worth recalling that human rights law includes strong protections against discrimination on a wide variety of additional grounds, including age, marital and family status, health status, and "other status," which has been interpreted to take into account types of discrimination that arise in specific circumstances, such as discrimination against homeless people, sex workers, or persons with HIV/AIDS.

A note on feasibility: experts interviewed for this paper emphasized the extreme difficulty, high cost, and attendant risks of adding questions to household surveys as a means of dealing with missing data. The main data sources used for global monitoring are broad household surveys that include hundreds of questions and take literally hours per household for the enumerator and respondent to complete. One expert pointed out that research has shown that the quality of the data deteriorates as the number of questions increases, citing a study that demonstrated that child mortality rates had been skewed by "birth transference," a phenomenon in which enumerators, seeking to reduce the number of long forms they needed to fill out whenever an under-five death was reported, began erroneously reporting children as being over five years old at the time of their death. For this reason, **the majority of the JMP's future work on equality and non-discrimination should use existing data and should not involve recommendations to add questions to the DHS or MICS questionnaires.** This paper follows this approach wherever possible.

⁹⁷ CESCR, General Comment No. 15, at ¶ 53.

Sex/Gender

Cultures draw distinctions based on sex and ascribe cultural roles to male and female persons via gender. Power is often distributed along gender lines. Under human rights law, the dismantling of gender discrimination is imperative and binding.⁹⁸ In order to understand the differing degrees to which men and women enjoy human rights, and to identify disparate impacts based on sex, human rights indicators projects have called for sex-disaggregated data in all relevant realms.⁹⁹ The COHRE Indicators Report emphasized the need for such data in relationship to water and sanitation, emphasizing especially the need to monitor gender differences in, *inter alia*, the ability to access hand washing facilities in schools, to use safe and secure sanitation facilities, and to make decisions about water and sanitation.¹⁰⁰

The JMP has used sex-disaggregated data concerning the household labor of gathering water to significant effect. Since 2008, graphical representations of the vastly disproportionate burden on women and girls have been routinely included in JMP reports.¹⁰¹ This effective reporting was based on work done by JMP to add a question in the DHS and MICS asking who collects water for the household, and whether this person was a man, woman, boy, or girl. The question was added to the DHS standard model household questionnaire in Phase 5, but was removed from the model questionnaire for Phase 6, although some countries retained it.¹⁰² The MICS added this question in MICS 3, and has chosen to retain it.¹⁰³ Adding a specific question was necessary since it is impossible to accurately disaggregate intra-household data about household resources such as water and sanitation on the basis of gender without additional data collected for that purpose.¹⁰⁴ This issue is a serious obstacle to analyzing household data for discrimination like that based on gender, which cuts across, and into, households:

Households are aggregations of individuals who may act cooperatively or competitively when generating and using resources such as income or accessing assets such as land and financial wealth. It is clear that not all households share resources and assets equally and that some members may be relatively more

⁹⁸ See, for example, CEDAW, *supra* note 13, at arts. 1 and 2; ICCPR, *supra* note 12, at arts. 3 and 26.

⁹⁹ See, for example, OHCHR, *2008 Report on Indicators*, *supra* note 95, at 44 (Ratio of students to teaching staff in primary and secondary, public and private, education institutions, 48 (conviction rates of indigent defendants), 49 (infant mortality rates).

¹⁰⁰ COHRE Indicators Report, *supra* note 91, at 36, 41, 42

¹⁰¹ See, for example, EQUITY, SAFETY AND SUSTAINABILITY, *supra* note 4, at 28; WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, *Progress on Drinking Water and Sanitation: Special Focus on Sanitation* (2008) at 35.

¹⁰² Compare Demographic and Health Surveys, "Model Household Questionnaire," Phase 5 (Q 105) and Phase 6.

¹⁰³ See Multiple Indicator Cluster Surveys, "Household Questionnaire," MICS 3 (Q WS4).

¹⁰⁴ Intra-household disaggregation of data on the basis of sex is something that has been widely examined by demographers and economists. There are methods for creating estimated disaggregations for particular types of data, but these depend on robust sources which do not exist on a cross-country basis. See, for example, Angus Deaton, *Nutrition, Children, and Intra-household Allocation*, THE ANALYSIS OF HOUSEHOLD SURVEYS: A MICROECONOMIC APPROACH TO DEVELOPMENT POLICY 201-270 (1997); and Sarah Grammage/USAID, *A Menu of Options for Intra-Household Poverty Assessments* 6 (2006); available at http://pdf.usaid.gov/pdf_docs/PNADH568.pdf [hereinafter *A Menu of Options for Intra-Household Assessments*].

privileged than others, commanding more income and accessing greater consumption opportunities. Where this is the case, some members of a household may be more likely to be very poor than others. There is also evidence that intrahousehold inequality and poverty may disproportionately affect women, children and the aged.¹⁰⁵

While most of the experts interviewed for this paper emphasized the need to resist a focus on adding questions to the DHS and MICS, the **need for gender-disaggregated data in the water and sanitation areas may be one of the most important places to make such a recommendation**. As a UN DESA-sponsored expert meeting concluded, the lack of data may itself be one of the major obstacles to improving women's access to water and sanitation:

This lack of progress is due in part to the stark absence of gender disaggregated WATSAN data. Without gender-disaggregated data, it is not possible to fully measure progress towards MDG or other goals. Without data, it is difficult to make effective analytical assessments of the comparative situation of women and men in different communities or parts of the world. Sound policy formulation is hampered by the lack of information about the gendered realities of water and sanitation access, need and use in private and public sectors. Gender disaggregated data are essential to assess the effects of policy measures on women and men.¹⁰⁶

The answer to this problem would be to either add **new gender-specific questions** (especially concerning sanitation, since there is only one gender-sensitive question and it focuses on water) or to **add a new module to the standard household surveys that would allow for disaggregation of data within households**. The former might be something to explore, though additional gender-specific questions have been considered and rejected in the past.¹⁰⁷ While the latter is an attractive option not only for water and sanitation but for all sectors, it would also be extremely expensive and time-consuming and would not yield results for many years due to the time needed to create, pilot test, revise, validate, and finalize new survey modules. Other options revolve around creative uses of existing data or its contextualization through other types of data, referred to below.

Experts interviewed for this paper explained that some work has been done to examine differential access to water and sanitation by female-headed as compared to male-headed households using DHS and MICS data sets, but this work has not been terribly revealing thus far. Another expert suggested that households could be given gender "scores" that would correlate to the number of adult men versus women in the household, and then data for water and sanitation could be cross-tabulated with the gender scored household data.

¹⁰⁵ *A Menu of Options for Intra-Household Assessments*, *supra* note 104, at 6.

¹⁰⁶ United Nations Department of Economic and Social Affairs (UN-DESA) and UN-Water Decade Programme on Capacity Development (UNW-DPC), *Gender-Disaggregated Data on Water and Sanitation Expert Group Meeting Report 3* (2009).

¹⁰⁷ *Id.* at 8.

These avenues are promising and should be pursued. However, the limits inherent in the gender data are compounded by the fact that there is no gender-disaggregated question concerning sanitation, despite the ample evidence that women's needs for sanitation facilities are distinct from those of men, and that women frequently suffer in gender-specific ways when they have difficulties accessing adequate sanitation facilities. Therefore, this is one area in which the WG should consider how JMP might supplement its global quantitative monitoring through use of carefully designed national or local data and/or qualitative measures, or the analysis of household data alongside important community-level data.¹⁰⁸

Recommendations relating to gender

- The possibility of re-inserting the sex-disaggregated water collection question into the DHS household module should be explored.¹⁰⁹
- Additional work to assess the usefulness of analyzing access to water and sanitation in female-headed households as compared to male-headed households should be undertaken.
- Work in the health field to examine the impact of women's empowerment on their use of health services could be explored as a potential model for such investigations concerning women's empowerment and responsibility for water collection.¹¹⁰
- Additional ways to use data about gender should be explored, such as creating a composite gender score that would combine variables such as female water-collector, female-headed households, households without adult men, etc., to see if there are any revealing correlations. Trial and error with a creative approach is needed here and could draw on in-depth studies on gender equality that have been carried out based on the DHS and MICS.¹¹¹
- Explore the possibility of using additional data sources such as national or local data for information on inequalities. Because household surveys are so limited in relation to gender, it may be necessary to use other types of data when examining gender discrimination in relation to a household resource like water and sanitation. This may be especially important in relation to sanitation, since neither MICS nor DHS include data about sanitation that would be amenable to disaggregation on the basis of sex.
- In the longer term, alternative approaches to understanding how intra-household gender dynamics impact access to water and sanitation for men, women, boys, and girls, could

¹⁰⁸ See *id.* at 15 (“It is a challenge to integrate qualitative and quantitative data, but techniques to do so have already been developed and are proving their value. For example, ranked-qualitative scales can be developed to assess the quality and nature of women’s participation in decisionmaking (rather than simply looking at the “yes/no” presence of women in such a group); similarly, ranked scales can assess the nature and hygiene of sanitation facilities, rather than a focus simply on the presence of a facility. Gender scholars are at the forefront of developing such techniques.”)

¹⁰⁹ Research conducted for this paper did not determine why the question was removed, although experts presumed it was because of pressure to add other questions and keep the surveys to a reasonable length.

¹¹⁰ For an example of this kind of analysis in the health field, see Saifuddin Ahmed, Andreea A. Creanga, Duff G. Gillespie, and Amy O. Tsui, *Economic Status, Education and Empowerment: Implications for Maternal Health Service Utilization in Developing Countries*, 3 PLoS (2010) 3E.

¹¹¹ For example, the Ethiopian Society of Population Studies conducted an extensive, in-depth analysis of women’s inequality and empowerment based on DHS data. See ETHIOPIAN SOCIETY OF POPULATION STUDIES, GENDER INEQUALITY AND WOMEN’S EMPOWERMENT (2008), available at <http://ethiopia.unfpa.org/drive/Gender.pdf>.

be explored through research collaborations with university-based research institutes.¹¹² Development agencies have been testing and assessing various approaches to this issue and would be an excellent resource.¹¹³

Disability

Human rights law provides strong protections for persons with disabilities, who often suffer both discrimination and marginalization. Principles of non-discrimination and equality apply to disability status. The Convention on the Rights of Persons with Disabilities emphasizes the importance of data collection and analysis in advancing the rights of persons with disabilities. Article 31 requires States to:

collect appropriate information, including statistical and research data, to enable them to formulate and implement policies to give effect to the present Convention. . . . The information collected in accordance with this article shall be disaggregated, as appropriate, and used to help assess the implementation of States Parties' obligations under the present Convention and to identify and address the barriers faced by persons with disabilities in exercising their rights.¹¹⁴

Although the CRPD is very clear on this matter, the collection of standardized, robust data is in its infancy at the global level. The CRPD itself entered into force less than four years ago. The World Bank has found that:

Historically very little reliable data have been collected as to the numbers of persons with disabilities, their accommodation needs, and/or the type and nature of barriers faced by persons with disabilities in enjoying their human rights. Many avenues for collecting information about persons with disabilities (such as national censuses and surveys) have not been effectively utilized in the past. The collection of data on persons with disabilities is often a sensitive issue because of the possible misuse of the information collected. Disability-based discrimination and stigma sometimes inhibits the willingness of survey administrators and participants to ask or answer questions related to disability.¹¹⁵

Significant strides are being made in advancing the collection of quality data on disability. The UN Statistics Division has created a working group, the Washington Group on Disability

¹¹² There is an extensive literature in development economics challenging the “unitary” theory of the household. *See, for example*, Lawrence Haddad, John Hoddinott, and Harold Alderman, eds., *INTRAHOUSEHOLD RESOURCE ALLOCATION IN DEVELOPING COUNTRIES: MODELS, METHODS, AND POLICY* (1997); Agnes R. Quisumbing & John A. Maluccio, “Intrahousehold Allocation and Gender Relations: New Empirical Evidence,” Policy Research Report on Gender and Development, Working Paper Series, No. 2 (1999). Some of this work could be of interest for longer-term developments in relation to water and sanitation.

¹¹³ *A Menu of Options for Intra-Household Assessments*, *supra* note 104, at 6.

¹¹⁴ CRPD, *supra* note 14, at art. 31.

¹¹⁵ World Bank, “Disability and Development: Statistics and Data Collection,” *available at* <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALPROTECTION/EXTDISABILITY/0,,contentMDK:22230584~menuPK:6521558~pagePK:210058~piPK:210062~theSitePK:282699,00.html>.

Statistics, which has developed methods for data collection to be used in censuses and national surveys.¹¹⁶ Some countries have included questions designed by the Washington Group in their DHS surveys.¹¹⁷ However, these questions have not yet been included in the DHS model questionnaires, and they are still being refined.

MICS includes an optional module on disability. This module collects data on disabilities in children ages 2-9. The module was available in MICS 2 and 3, and has been used by a large number of countries during each phase (22 of 65 for MICS 2¹¹⁸ and 26 of 50 for MICS 3¹¹⁹). The module collects information about impairments, health conditions, and activity limitations.¹²⁰ Despite the existence of standardized data on children with disabilities, it is impossible to disaggregate intra-household data about household resources like water and sanitation on the basis of disability for the same reasons explored above in relation to gender.

The World Health Organization's World Health Survey, conducted from 2002-2004, was "the largest multinational health and disability survey ever using a single set of questions and consistent methods to collect comparable health data across countries."¹²¹ Based on this study and others, the World Health Organization estimates that more than one billion people worldwide have a disability, with almost 200 million facing significant barriers in their daily lives.¹²² Especially relevant to the Working Group's task is this finding:

Across all countries, vulnerable groups such as women, those in the poorest wealth quintile, and older people had higher prevalences of disability. For all these groups the rate was higher in developing countries.¹²³

Despite these limits on global monitoring, significant evidence exists which demonstrates that people with disabilities experience significant barriers in accessing water and sanitation. The International Disability Alliance has recently emphasized this:

¹¹⁶ United Nations Statistics Division, "Washington Group on Disability Statistics," *available at* <http://unstats.un.org/unsd/methods/citygroup/washington.htm>.

¹¹⁷ For example, Uganda included such questions in its DHS published in 2006. *See* UGANDA BUREAU OF STATISTICS/MACRO INTERNATIONAL, UGANDA DEMOGRAPHIC AND HEALTH SURVEY 2006 22 (2006) (The set of six questions included in the UDHS was based on a tool that was being developed by the UN Washington Group on Disability Statistics").

<http://www.measuredhs.com/pubs/pdf/FR194/FR194.pdf>

¹¹⁸ 22 of 65 countries in MICS 2 included the module. *See* Edilberto Loaiza and Claudia Cappa, "Measuring Children's Disability via Household Surveys: The MICS Experience" 3 (2005), *available at* http://www.childinfo.org/files/childdisability_PAAPaperLoaizaCappa.pdf.

¹¹⁹ UNICEF/UNIVERSITY OF WISCONSIN SCHOOL OF MEDICINE AND PUBLIC HEALTH, MONITORING CHILD DISABILITY IN DEVELOPING COUNTRIES: RESULTS FROM THE MULTIPLE INDICATOR CLUSTER SURVEYS 1 (2008), *available at* http://www.childinfo.org/files/Monitoring_Child_Disability_in_Developing_Countries.pdf.

¹²⁰ Edilberto Loaiza and Claudia Cappa, "Measuring Children's Disability via Household Surveys: The MICS Experience" 3 (2005), *available at* http://www.childinfo.org/files/childdisability_PAAPaperLoaizaCappa.pdf.

¹²¹ WHO & WORLD BANK, WORLD DISABILITY REPORT 25 (2011) [hereinafter WORLD DISABILITY REPORT].

¹²² *Id.*, at xi.

¹²³ WORLD DISABILITY REPORT, *supra* note 121, at 27.

In developing countries, persons with disabilities have to travel long distances to get water. Information about water distribution, points of water distribution and water access, water pump design, and water containers are not accessible. In addition, for many, there is a lack of social networks or assistance where needed. Prevention messages on water safety are not accessible. Disproportionately expensive water has a serious impact on persons with disabilities living in extreme poverty and considering the lack of implementation of the right to work.¹²⁴

Because **disability is so common, and since persons with disabilities often experience discriminatory obstacles accessing equal water and sanitation services, this is an area that should be explored further** by the Working Group.

Recommendations relating to disability

- Strategies should be examined for analyzing data on disability status in relation to data concerning access to water and sanitation.
- The Working Group could draw on work in the academic realm on indicators to measure the obstacles faced by persons with disabilities and other marginalized groups.

Race/Ethnicity/National Origin/Caste/Language/Religion

Human rights law recognizes the equality of all people regardless of race, ethnicity, national origin, language, or religion.¹²⁵ International treaties require States to take concerted and effective actions to dismantle discrimination on these grounds, and to protect the rights of all, without distinctions based on race, ethnicity, national origin, language, or religion.¹²⁶ Human rights law further requires States to affirmatively protect and ensure the rights of minorities to enjoy their culture, language, and/or religion in community with each other.¹²⁷ Human rights indicators projects have underscored the value of data disaggregated on these grounds in efforts to identify and combat discrimination.¹²⁸ **JMP has not used data disaggregated by race, ethnicity, national origin, language, or religion in its biannual global reports. However, data on race, national origin, language, and religion are widely available in the DHS and MICS data sets.**

¹²⁴ Statement of the International Disability Alliance, Item 3, Clustered interactive dialogue with the independent experts on water and sanitation, and extreme poverty 1 (14 Sept. 2010). *See also* UN DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS, *DISABILITY AND THE MILLENNIUM DEVELOPMENT GOALS: A REVIEW OF THE MDG PROCESS AND STRATEGIES FOR INCLUSION OF DISABILITY ISSUES IN MILLENNIUM DEVELOPMENT GOAL EFFORTS 23* (2011) (“Persons with disabilities face both technical and social barriers that mitigate against their ability to regularly access clear water.”) (internal citation omitted).

¹²⁵ ICERD, *supra* note 13, at arts. 1 and 2; ICCPR, *supra* note 12, at arts. 2, 26, 27.

¹²⁶ *Id.* The Human Rights Committee has underscored that minorities protected by Article 27 of the ICCPR also benefit from the right to equality and non-discrimination set out in Articles 2 and 26. *See* Human Rights Committee, General Comment 23.

¹²⁷ ICCPR, *supra* note 12, at art. 27

¹²⁸ *See, for example*, OHCHR, *2008 Report on Indicators*, *supra* note 95, at 40 (proportion of births attended by skilled health personnel), 41 (proportion of complaints concerning torture resolved), 44 (ratio of students to teaching staff), 46 (forced evictions), 48 (conviction rates of indigent defendants), 49 (infant mortality rates).

Concerning race, ethnicity and national origin, analysis conducted for this paper found that of the 89 countries participating in DHS 5, more than half (45) collected data on color, ethnicity, or national origin (see Appendix A). These questions are included in the women's and men's questionnaires, not the household module. All of the DHS questionnaires that included the question asked for this information with respect to the respondent, and some additionally asked for the information about all members of the household, the head of household, or the respondent's spouse.¹²⁹ One country also asked for this information about the respondent's parents.¹³⁰ As demonstrated in the table in Appendix A, the vast majority posed the question as one of self-identification, using formulations such as:

- What is your color¹³¹/ethnicity¹³²/nationality¹³³/tribe¹³⁴/caste¹³⁵?
- How would you describe yourself in terms of population group?¹³⁶ or How do you classify yourself?¹³⁷ Or What is your tribe/group?¹³⁸

However, several countries asked enumerators to observe and record ethnic information instead of asking the respondent to report it,¹³⁹ and one country asked for both a self-report and the enumerator's description.¹⁴⁰

Of the 52 countries participating in MICS 3, almost half (23) collected information about ethnicity or national origin (see Appendix B). The formulation of relevant questions in the MICS did not vary as much as they did in the DHS. Instead, data were collected by asking "What [ethnic group/nationality] does the head of household belong to?"

Concerning language, 19 of the 89 countries participating in DHS 5 collected information about language (see Appendix A). These questions were included in the women's and men's questionnaires, and for the most part¹⁴¹ were not included in the household module. Questions included:

- What languages can you read¹⁴²/speak¹⁴³?
- What language is principally spoken at home?¹⁴⁴

¹²⁹ See, for example, Benin (all members of household), India (head of household).

¹³⁰ Democratic Republic of the Congo.

¹³¹ Brazil.

¹³² See, for example, Burkina Faso, Azerbaijan.

¹³³ See, for example, Burundi, Gabon, Kazakhstan, Uzbekistan.

¹³⁴ See, for example, Democratic Republic of the Congo, Malawi, Zambia, India.

¹³⁵ See, for example, India, Nepal.

¹³⁶ South Africa.

¹³⁷ Philippines.

¹³⁸ Kenya.

¹³⁹ Sri Lanka, Guatemala, Trinidad and Tobago.

¹⁴⁰ Brazil.

¹⁴¹ Bolivia included this question in the household module.

¹⁴² Botswana, Chad, Moldova ("Which languages do you read most easily?"), Kyrgyz Republic, Uzbekistan.

¹⁴³ Mozambique, Turkey, Bolivia.

- What dialect do you speak other than [English]?¹⁴⁵
- What is your mother tongue?¹⁴⁶

All of the DHS questionnaires that included the question asked for this information with respect to the respondent, and two also asked for the information about all members of the household.¹⁴⁷ Several countries also asked for this information about the respondent's parents¹⁴⁸ and one also asked about the respondent's grandparents.¹⁴⁹ **Of the 52 countries participating in MICS 3, 25 asked a standard question about the “mother tongue/native language” of the head of household in the household module** (see Appendix B).

With respect to religion, two-thirds (62) of the 89 countries participating in DHS 5 collected information about religion (see Appendix A). These questions were included in the women's and men's questionnaires, and for the most part were not included in the household module.¹⁵⁰ All of the DHS questionnaires with this question asked for this information with respect to the respondent, and some additionally asked for the information about all members of the household, the head of household, or the respondent's spouse.¹⁵¹ As demonstrated in the table in Appendix A, the vast majority posed the question as “What is your religion?/What religion do you belong to?” A few countries added follow-up questions seeking information about whether the respondent had attended religious services within a given timeframe¹⁵² or how frequently the respondent did so.¹⁵³ **Of the 52 countries that participated in MICS 3, half (26) asked a standard question about the religion of the head of household.**¹⁵⁴

Because questions about race/ethnicity, language, and religion were included in the household module of the MICS survey, disaggregated data on water and sanitation from countries that included those questions is accessible without cross-tabulation. With respect to DHS data, several experts confirmed that the household data—including data on water and sanitation—could be cross-tabulated with the demographic data collected in the women's and men's modules to produce disaggregated data about water and sanitation access broken down by race/ethnicity, religion, and language.¹⁵⁵

¹⁴⁴ Guinea, Mali, Namibia, Niger, Kyrgyz Republic, Uzbekistan, Thailand, Bolivia and Nicaragua (“What is the language in which you learned to speak in your childhood?”), Guatemala and Paraguay (in addition, “Can you speak Spanish” is also asked), Peru.

¹⁴⁵ Liberia.

¹⁴⁶ Turkey, Pakistan.

¹⁴⁷ Bolivia, Nicaragua.

¹⁴⁸ Turkey, Peru.

¹⁴⁹ Peru.

¹⁵⁰ Benin included this question in the household module.

¹⁵¹ See, for example, Benin (all members of household), India (head of household), Central African Republic (spouse).

¹⁵² Zimbabwe (asked about “in the last month”), Ukraine (“last twelve months”)

¹⁵³ Brazil, Paraguay.

¹⁵⁴ “What is the religion of the head of this household?”

¹⁵⁵ One expert explained that this kind of cross-tabulation could carry some risks since there is always the possibility of inconsistencies arising between the modules.

Perhaps the most vociferously stated objection to using data disaggregated by prohibited grounds of discrimination voiced by experts interviewed for this report was that it is not comparable cross-nationally. Racial groups, ethnic minorities, national groupings, and religious groups vary significantly across countries. Even where such groups cross borders, they may be defined differently in various countries. Evidence of this is apparent in the charts provided in Appendices A and B. Further, some were concerned that treating race, ethnicity, and nationality similarly is analytically unhelpful, since these categories are quite distinct. Some possible methods for handling this are discussed below.

Echoing an objection heard by certain governments before human rights bodies, more than one expert expressed the opinion that the very act of gathering and reporting on ethnic and racial data is itself discriminatory since it violates privacy norms, or tends to reify culturally constructed categories.¹⁵⁶ Two experts suggested that it is considered unlawful in some countries to collect information based on race or ethnicity. However, a Council of Europe study examining why ethnic data was not being adequately collected and analyzed found that “In most Council of Europe countries, the problem is more lack of awareness of the role played by statistics in action against discrimination than genuine legal obstacles.”¹⁵⁷

Like data concerning race and ethnicity, the significance of data about language will vary greatly. In some countries, language groups form distinct minorities, reflecting cultural, historical, or geographical ties. In other places, language does not play this role. For this reason, understanding the context of the data is necessary before it can be given meaning.

Although none of the experts interviewed voiced this as a concern, it is apparent from Appendices A and B that human rights concerns could arise if the groupings are accepted as defined by the questionnaires. Some countries, for example, apparently asked individuals to choose between being one or another nationality or ethnicity, something many who consider themselves to be of mixed-ethnic or mixed-nationality background may find objectionable. One expert conveyed an anecdote about a country simply refusing to ask about ethnicity even though ethnic disparities in this country were obvious and linked to poor development outcomes. As the COHRE Indicators Report pointed out, unless the groups being counted were consulted in the construction of the categories and mode of questioning, human rights issues could arise, especially since “[s]ome minorities may not wish to be categorised separately.”¹⁵⁸

Another serious obstacle to using data disaggregated by race, ethnicity, national origin, language group, or religion emphasized by several experts is that the sample sizes in nationally representative surveys like the DHS and MICS will render such disaggregated data unreliable.¹⁵⁹

¹⁵⁶ Although none of the experts interviewed voiced this as a concern, it is apparent from Appendices A and B that human rights concerns could arise if the groupings are accepted as defined by the questionnaires. Some countries, for example, asked individuals to choose between being one or another nationality or ethnicity, something many who consider themselves to be of mixed-ethnic or mixed-nationality background may find objectionable.

¹⁵⁷ See Patrick Simon/European Commission Against Racism and Intolerance, “*Ethnic Statistics and Data Protection in Council of Europe Countries* 25 (2007). See also COHRE Indicators Report at 19.

¹⁵⁸ COHRE Indicators Report, *supra* note 91, at 19.

¹⁵⁹ See UNICEF, “Designing and Selecting the Sample,” MICS 3 Survey Manual 4.31-4.32, available at http://www.childinfo.org/files/MICS3_Chapter_4_-_Designing_and_Selecting_the_Sample_060219.pdf.

All of these concerns suggest that global use of the data would need to be approached very carefully. However, these concerns are not new, and solutions developed at the national and regional levels, as well as approaches used in the context of other MDGs, could be drawn upon in designing new approaches to global use of this data.¹⁶⁰ Several experts interviewed for this paper suggested creative ways to handle some of these challenges. Some of these ideas, alongside others, are included below.

Recommendations relating to race, ethnicity, nationality, religion, and language

- Adopt a global target about access to water and sanitation by “minority” or “disadvantaged” groups. The target could either focus on reducing the gap in access to water and sanitation between majority and minority communities, or it could call for improved access by minority groups. Create global indicators whose methodology would be fixed at the global level, but whose content would vary depending on the country. See Appendix C for examples of what such indicators might look like.
- In tandem with this suggestion, consider an approach in which DHS and MICS demographic data concerning social groups would be recoded into global categories such as “dominant/non-dominant/minority” or “dominant/non-dominant/disadvantaged.” Recoding would be done on a country-by-country basis to take into account the varying types of marginalization and discrimination that different groups face.¹⁶¹ The construction of these larger categories might help with the small sample size issue, as well as soothing some of the political concerns that arise with reporting on ethnicity or religion, since the recoded categories could include groups defined by any of the relevant axes of discrimination. Recoding like this has been undertaken by academic researchers in relation to the monitoring of other MDGs and could be helpfully explored in relation to water and sanitation.¹⁶² The work of National Human Rights Institutions (NHRIs) might also be helpful here, especially when the NHRIs have worked with data disaggregated by

This concern was also voiced by numerous experts interviewed for this paper. It was also identified in the COHRE Indicators Report:

Sample surveys, which many of the existing international monitoring processes rely on, can have the drawback that they do not provide sufficient information on disaggregation, since the sample size of a particular group (such as an ethnic minority) within the sample is normally too small to make proper generalisations.

COHRE Indicators Report, *supra* note 91, at 14.

¹⁶⁰ See discussion at note 162.

¹⁶¹ Of course there are very complex issues to be explored in relation to this recommendation, including who would decide on which groups fell into which category (national statistics offices? How could participation of minority groups be ensured in these definitions) and who would undertake the coding. If this option were to be explored, it would be wise to discuss it with leading actors in other sectors since this kind of recoding would allow for disaggregated analysis for all sectors. National experience with tracking race and ethnic inequalities in achieving the MDGs would be especially helpful. See *supra* note 165.

¹⁶² Wirth et al. have conducted this kind of analysis in relation to the health-related MDGs. A brief recap of their method relating to recoding ethnic data: “Here categories provided by DHS are used to examine stratification by ethnic group, where data was available. In addition, the population is divided into three types of ethnic groups, which are referred to as ‘ethnicity recodes’: dominant, secondary dominant, and non-dominant.” Meg Wirth, Enrique Delamonica, Emma Sacks, Deborah Balk, Adam Storeygard, Alberto Minujin, *Monitoring Health Equity in the MDGs: A Practical Guide* 21 (CIESIN and UNICEF, January 2006), available at http://sedac.ciesin.columbia.edu/povmap/downloads/analysis/Health_equity_Guidelines.pdf.

disadvantaged groups relevant to the country.¹⁶³ Further, some national reporting on the MDGs has used disaggregation by race and ethnicity; the definitions and contours of the categories used in these reports could be drawn upon in such a recoding process.¹⁶⁴ Depending on feasibility, the new data sets could allow for the presentation of disaggregated data related to water and sanitation.

- Work with countries to develop sampling approaches that will allow for reliable disaggregation on minority status grounds. This may require over-sampling of certain groups.
- Use the thematic reporting capacity of JMP to report on disparities in access to water and sanitation by minority groups. Thematic reports have included analyses based on subsets of JMP data and thus allow for reporting on issues that are measurable in only a subset of countries. A report could be prepared, for example, that examined the situation facing racial and ethnic minorities in the more than 60 countries that collected data about those groups in the last round of DHS and MICS. In some cases, national MDG reports could be drawn upon, since some analyze race and ethnic disparities in relation to the MDGs,¹⁶⁵ although these analyses tend not to include analysis of disparities in water and sanitation.¹⁶⁶ If country-level reporting is considered unwise, aggregate regional or global data could be presented concerning groups that span multiple countries in a region (e.g., indigenous peoples in the Americas, Roma in Europe, Persons of African Descent in Diasporas, etc.).

Other Axes of Discrimination

Human rights law provides strong protections for other groups that often suffer discrimination and marginalization. Principles of non-discrimination and equality apply to sexual orientation, age, and other statuses. This section briefly examines sexual orientation and sexual identity as examples of a much broader set of identity categories.¹⁶⁷ Unlike disability, where steps are being taken to collect quality data, there are virtually no efforts underway at the global level to collect data about sexual minorities. What efforts exist have come in the context of health monitoring, where some data have been gathered concerning, for example, men who have sex with men, in

¹⁶³ See, for example, Afghanistan Independent Human Rights Commission, 2009 Report on the Situation of Economic and Social Rights in Afghanistan 73 (2009) (reporting on access to the rights to water and sanitation for Kuchis, returnees, and internally displaced persons).

¹⁶⁴ See supra note 165.

¹⁶⁵ See Report of the independent expert on minority issues, Gay McDougall *Addendum: Achieving the Millennium Development Goals for Minorities: A Review of MDG Country Reports and Poverty Reduction Strategies* (2007), U.N. Doc. A/HRC/4/9/Add.1. Brazil, for example, tracks inequalities on the basis of race, gender, regions, urban/rural, and wealth quintiles in its MDG reporting. Global thematic reports could present—and aggregate—work like this completed at the national level. See GOVERNMENT OF BRAZIL, BRAZILIAN MONITORING REPORT ON THE MILLENNIUM DEVELOPMENT GOALS 11 (2004), available at <http://planipolis.iiep.unesco.org/upload/Brazil/Brazil%20MDG%20Report%20English%20version.pdf>.

¹⁶⁶ See Report of the independent expert on minority issues, *id.* (finding that only three national MDG reports included discussion of ethnic and racial disparities in relation to water and sanitation).

¹⁶⁷ See page 21 for a discussion of the choice of grounds of discrimination discussed in this paper.

the context of HIV prevention.¹⁶⁸ However, important developments have taken place recently at the national level:

Steps to include sexual orientation data in official surveys have been taken in several countries. For example, producers of official statistics in Canada and the United States^[169] have collected sexual orientation data for some time, starting in the early 1990s. The United Kingdom Office for National Statistics (ONS) has recently begun collecting standard sexual orientation data in six, large-scale household surveys following an intensive two-year programme to develop, test, and trial sexual orientation questions. Statistics Norway is also currently actively considering how best to collect sexual orientation data. . . the [New Zealand] Ministry of Health has commenced collection of official sexual orientation data . . . Hence, valuable national and international knowledge and experience in the area of collecting official data on sexual orientation is currently available.¹⁷⁰

Data availability issues should be examined in light of the still common and often draconian legal provisions that discriminate against LGBT people, as well as widespread patterns of hate crime and physical violence against LGBT communities in all regions of the world.¹⁷¹ These conditions make it very difficult to design a global approach to monitoring. In many countries, the LGBT community would be at risk of prosecution or abuse if the community was to identify itself through official statistical exercises.

Until better and more widespread data sets are available, global monitoring of the difficulties that sexual minorities may face in accessing water and sanitation is unlikely to be possible using traditional methods. Anecdotal information suggests that members of LGBT communities in many countries may experience obstacles to accessing water and sanitation facilities on the basis of their sexual orientation or gender identity. Gender non-conforming individuals, for instance, may experience harassment and abuse when using gender segregated sanitation facilities. Displaced and disaster-affected LGBT persons may have similar troubles in camps for the displaced, and may be at heightened risk of sexual violence near sanitation facilities in such camps.

¹⁶⁸ See Global Fund to Fight AIDS, Tuberculosis, and Malaria, *The Global Fund Strategy in Relation to Sexual Orientation and Gender Identities* (N.D.) (noting that nationally collected data are “scarce” and adopting a policy to support strengthening of data collection in relation to sexual orientation and sexual identity).

¹⁶⁹ The U.S. Department of Health and Human Services has recently launched an initiative aimed at integrating sexual orientation and sexual identity variables into household surveys in the United States. U.S. Department of Health and Human Services, “Improving Data Collection for the LGBT Community,” *available at* http://minorityhealth.hhs.gov/assets/pdf/checked/1/Fact_Sheet_LGBT.pdf.

¹⁷⁰ Frank Pega, *Sexual Orientation Data Collection Study Report 1: Sexual Orientation Conceptual Framework*, NEW ZEALAND OFFICIAL STATISTICS RESEARCH SERIES, Vol. 2010-2 (2009).

¹⁷¹ See United Nations High Commissioner for Human Rights, Discriminatory laws and practices and acts of violence against individuals based on their sexual orientation and gender identity (17 November December 2011), U.N. Doc. A/HRC/19/41 (finding that “In all regions, people experience violence and discrimination because of their sexual orientation or gender identity. In many cases, even the perception of homosexuality or transgender identity puts people at risk. Violations include—but are not limited to—killings, rape and physical attacks, torture, arbitrary detention, the denial of rights to assembly, expression and information, and discrimination in employment, health and education. United Nations mechanisms, including human rights treaty bodies and the special procedures of the Human Rights Council, have documented such violations for close to two decades”).

Recommendations relating to other axes of discrimination

- Explore methods to address axes of discrimination that are not adequately addressed in the main household surveys that form the backbone of global water and sanitation monitoring. This is especially important with respect to groups that may suffer disproportionately in relation to water and sanitation specifically.

Disaggregation by Wealth Quintiles

In recent years, JMP has made an enormous contribution to advancing the rights of the very poor by disaggregating water and sanitation data by wealth quintiles. As mentioned earlier in the paper, such disaggregation has been used to striking effect in the recent JMP publication, *Equity, Safety and Sustainability*. This type of monitoring is very valuable when talking a human rights approach, which requires the prioritization of the most disadvantaged populations.¹⁷²

Experts interviewed for this paper reported that the wealth quintile analysis has been extremely effective in demonstrating to decision-makers that increased efforts, and better targeting, are urgently needed in relation to the bottom quintiles. Further, because wealth inequalities are often correlated to inequalities based on race, ethnicity, or religion¹⁷³, such analyses, if paired with relevant cross-tabulations, can also be used to identify areas that should be investigated for the presence of discrimination.¹⁷⁴

There was near-total consensus that wealth quintile analysis, even if imperfect, is extremely important and should be emphasized moving forward. There was some support for the idea that the new water and sanitation targets should mandate that monitoring indicators be disaggregated by quintiles. Others felt that it would be wise to design a new target that is specifically about reducing inequalities, to be measured by indicators concerning improvements for those in the bottom quintiles alone. As has been observed in relation to health-related MDGs, “Equitable progress toward the MDG targets implies that the . . . outcomes of the disadvantaged will improve at the same or faster rates as the better-off groups.”¹⁷⁵

¹⁷² See, e.g., OFFICE OF THE UNITED NATIONS HIGH COMMISSIONER FOR HUMAN RIGHTS, FREQUENTLY ASKED QUESTIONS ON A HUMAN RIGHTS-BASED APPROACH TO DEVELOPMENT COOPERATION (2006), www.ohchr.org/Documents/Publications/FAQen.pdf.

¹⁷³ See Report of the independent expert on minority issues, Gay McDougall *Addendum: Achieving the Millennium Development Goals for Minorities: A Review of MDG Country Reports and Poverty Reduction Strategies* ¶ 12 (2007), U.N. Doc. A/HRC/4/9/Add.1 (“Ethnic, religious and linguistic minorities are more likely to be poor in all regions of the world. Human development indicators disaggregated by ethnicity or religion regularly show high and disproportionate levels of poverty and poor human development for persons belonging to minorities. Marginalized minorities should therefore benefit from progress towards the MDGs. Evidence suggests, however, that minorities are often left behind.”).

¹⁷⁴ For a similar point in relation to gender inequality in relation to health, see Gita Sen, Pirooska Östlin, Asha George, *Unequal, Unfair, Ineffective and Inefficient: Gender Inequity in Health—Why it exists and how we can change it*, Final Report to the WHO Commission on Social Determinants of Health xii-xiii (2007); available at http://www.who.int/social_determinants/resources/csdh_media/wgekn_final_report_07.pdf.

¹⁷⁵ Meg Wirth, Enrique Delamonica, Emma Sacks, Deborah Balk, Adam Storeygard, Alberto Minujin, *Monitoring Health Equity in the MDGs: A Practical Guide* 63 (CIESIN and UNICEF, January 2006), available at

Recommendations relating to wealth quintile disaggregation

- Retain and expand the use of wealth quintile analysis. Consider advocating for all post-2015 water and sanitation indicators to be disaggregated by wealth quintile.
- Explore ways to look behind the wealth quintiles analyses for patterns of discrimination and exclusion that co-exist with poverty, such as discrimination on the basis of race, ethnicity, or caste, as well as the gendered dimensions of poverty and how these dynamics impact access to water and sanitation.
 - One simple way to do this would be to present demographic information about, for example, the ethnic, racial, or religious composition of the quintiles when displaying information about access to water and sanitation. This could be done very simply in graphs and figures, and could draw on work of this sort done by UNICEF in *Progress for Children: Achieving the MDGs with Equity*.¹⁷⁶
 - Another idea mentioned by one expert was the use of thematic reporting on ethnic and racial inequalities in relation to wealth quintile analysis.

Data Concerning Slum Dwellers

The right to non-discrimination has been interpreted to include those who suffer discrimination on the basis of their “economic and social situation.”¹⁷⁷ The UN Committee on Economic, Social and Cultural Rights has emphasized that “[a] person’s social and economic situation when living in poverty or being homeless may result in pervasive discrimination, stigmatization and negative stereotyping,” contrary to international law.¹⁷⁸ In addition, human rights law protects the rights of those living in informal settlements through the right to adequate housing (which includes the right to security of tenure), the right to water, and the right to sanitation.¹⁷⁹ The UN Committee on Economic, Social and Cultural Rights has emphasized that slum dwellers should not be denied equal rights in the context of the right to water: “Deprived urban areas, including informal human settlements, and homeless persons, should have access to properly maintained water facilities. No household should be denied the right to water on the grounds of their housing or land status.”¹⁸⁰

Although the JMP provides data disaggregated by urban/rural residence, these data are national averages, revealing little about intra-urban disparities like those between wealthy areas and slums.¹⁸¹ The binary urban/rural categorization also distorts the reality of peri-urban slums,

http://sedac.ciesin.columbia.edu/povmap/downloads/analysis/Health_equity_Guidelines.pdf. (citing Freedman et al 2005, Ngom et al 2003).

¹⁷⁶ See, for example, graphs provided in: UNICEF, PROGRESS FOR CHILDREN: ACHIEVING THE MDGs WITH EQUITY 45 (2010); available at http://www.unicef.org/publications/files/Progress_for_Children-No.9_EN_081710.pdf

¹⁷⁷ CESCR, General Comment No. 20, at ¶ 35.

¹⁷⁸ CESCR, General Comment No. 20, at ¶ 35.

¹⁷⁹ ICESCR, *supra* note 12, at art. 11.

¹⁸⁰ CESCR, General Comment No. 15, at ¶ 16(c).

¹⁸¹ For a discussion of this issue, see Task Force Meeting Report, *supra* note 59, at 3.

which can be made “invisible” in analyses that code them as either urban or rural.¹⁸² The main sources of data upon which JMP relies, household surveys, “are not normally designed specifically to enable disaggregation of informal and slum areas from the urban data.”¹⁸³ Data from studies specifically designed to elucidate intra-urban disparities demonstrate that JMP data can be unhelpful in this regard.¹⁸⁴ For example, the Performance Assessment System in India found significant differences between slum dwellers and other urban residents for sanitation coverage, disaggregating what would normally be presented as an aggregate for all urban areas by JMP.¹⁸⁵

As UN Water and UN-HABITAT have observed:

The urban poor often live in informal settlements following rapid urban growth, in situations lacking many of life’s basic necessities: safe drinking water, adequate sanitation services and access to health services, durable housing and secure tenure. Affordable, safe, piped water is available to only a small share of low-income urban dwellers. Financing of improvements to water services is the key to expanding access, but the illegal status of the large majority of slum dwellers is often a barrier to access to finance or support. . . . New urban settlers need access to water and wastewater services. Yet many are lucky if these are supplied water through formal services via the municipal government. In more typical cases, they are served informally by vendors who regularly charge exorbitant rates for water of often questionable quality. Achieving a more equitable access to water is a critical task facing municipal leaders.¹⁸⁶

The link between obstacles to accessing water and sanitation and the living conditions of those in slums is definitional: according to UN-HABITAT, a slum household is defined as “a group of individuals living under the same roof lacking *one or more* of the following conditions: access to improved water, access to improved sanitation, sufficient-living area, durability of housing, or security of tenure.”¹⁸⁷ The core DHS and MICS surveys measure four of these five conditions— all but security of tenure.¹⁸⁸

¹⁸² See Lars Stordal, “Urban, Peri-Urban, and Slums: What Should be Considered in the Specific Settings?” Presentation at 2011 World Water Week, at slides 7-10, *available at* http://www.worldwaterweek.org/documents/WWW_PDF/2011/Wednesday/T5/Challenges-of-Monitoring-Drinking-water-and-Sanitation/Urban-peri-urban-and-slums.pdf.

¹⁸³ Task Force Meeting Report, *supra* note 59, at 3.

¹⁸⁴ Philipp Peters and Dirk Pauschert, “Using different data sources to get a better picture - The Kenyan/Tanzanian experience of monitoring in urban low income areas,” Presentation at 2011 World Water Week, Slide 4 (noting that “Insufficient disaggregation of data masks urban disparities”), *available at* http://www.worldwaterweek.org/documents/WWW_PDF/2011/Wednesday/T5/Challenges-of-Monitoring-Drinking-water-and-Sanitation/Using-different-data-sources-to-get-a-better-picture.pdf .

¹⁸⁵ Presentation of Mera Mehta, “Water Supply and Sanitation in Urban Slums in India,” Task Force Meeting Report, *supra* note 59, at 5.

¹⁸⁶ UN World Water Assessment Programme & UN-HABITAT, *Water for Sustainable Urban Human Settlements 3* (2010), *available at* http://www.unwater.org/downloads/WWAP_Urban_Settlements_Web_version.pdf.

¹⁸⁷ UN Stats, *Series Metadata, Goal 7, Target 7.D, 2*.

¹⁸⁸ Task Force Meeting Report, *supra* note 59, at 10.

To overcome this limit, UNICEF designed two optional Security of Tenure Modules for inclusion in MICS 3: one for inclusion in the Household Questionnaire and one for inclusion in the Women's Questionnaire.¹⁸⁹ These modules were designed to gather sufficient data to enable coders to categorize urban households as slum or non-slum households:

[A] household is considered a slum on the basis of five characteristics. A structure is considered non-durable if the flooring material is natural and, at the same time, there are two or more poor conditions identified with the dwelling, or if it is vulnerable to accidents, or if the dwelling is located in a hazardous area. A household is considered overcrowded if the ratio of household members to the number of rooms used for sleeping is more than three. In cases when household members do not have formal documentation for the residence (such as title deeds or tenants contracts), or if household members feel at risk of eviction from the dwelling, the household is considered to lack security of tenure. Lack of improved sanitation facilities and drinking water sources complete the five components of the definition of 'slum'. If the household bears one or more of these characteristics and is located in an urban area, it is considered a slum household. In other words, in MICS3, households are categorized as slums or non-slums after the data is collected and analysed.¹⁹⁰

While this additional data is helpful, the way it has been analyzed has not been sufficiently enlightening for global monitoring.¹⁹¹ **Instead of a binary slum/not slum categorization, one promising development is to disaggregate household data into levels of deprivation and create aggregate categories:**

A simple alternative approach is to group slum households into categories that can be aggregated into moderately deprived (one shelter deprivation), severely deprived (two shelter deprivations) and extremely deprived (three or more shelter deprivations). By studying the prevalence of slum households in categories of severity, changes in household deprivations can be tracked more accurately; a reduction in one shelter deprivation for a severely deprived household, for example, could still leave it with a deficiency, but would move it out of the ranks of the severely deprived. Addressing programmes and policies to geographic areas in which households experience combinations of deprivations also allows for more effective upgrading and improvement.¹⁹²

¹⁸⁹ The module for the Women's Questionnaire contains a single question concerning risk of eviction. See UNICEF, "Designing the Questionnaire," MICS 3 Survey Manual 3.26, available at http://www.childinfo.org/files/MICS3_Chapter_3_-_Designing_the_Questionnaires_060219.pdf.

¹⁹⁰ *Id.* at 3.25.

¹⁹¹ Task Force Meeting Report, *supra* note 59, at 8 ("the slum/non-slum distinction is not useful from the water/sanitation monitoring perspective").

¹⁹² UN-HABITAT, Case Study: Slum households and shelter deprivations: degrees and characteristics 1-2 (2009), available at <http://www.unhabitat.org/downloads/docs/presskitsowc2008/slum%20households.pdf>.

It should be noted that the UN-HABITAT deprivation index does not include the security of tenure data, “due to the political nature of this parameter.”¹⁹³ In addition, many observers with experience collecting and analyzing data related to slums have emphasized that additional parameters must be monitored to really capture the slum experience concerning water and sanitation. For example, issues of affordability, quality, availability, and sufficiency are key in relation to water in slums, and issues of safety, cleanliness, and availability of hand washing facilities are essential in relation to sanitation in slums.¹⁹⁴

In addition to these issues concerning the content of surveys, there are significant sampling issues that arise in relation to slums. Many nationally representative surveys do not have adequately large samples to allow for valid analysis of slum areas.¹⁹⁵ Slum dwellers’ associations have carried out extensive enumeration projects in many countries; such data could be used as a checking mechanism for determining the adequacy of a given country’s sampling design concerning informal settlements.¹⁹⁶ **One solution mentioned by some experts interviewed for this paper would be to oversample in slum areas, or to conduct slum-specific studies.**¹⁹⁷ The latter has been done in Egypt, for example, where Cairo slums were targeted for specific study in conjunction with the 2003 national DHS in Egypt.¹⁹⁸ Even with such an approach, difficult decisions concerning the definition and identification of which areas count as slums and therefore should be oversampled will need to be made. National definitions of slums may use varying methodologies (such as using administrative definitions or poverty levels), but international definitions may be less precise. UN-HABITAT has adopted a threshold approach: “a neighborhood is classified as a slum if more than half of the households in the area suffer from one or more shelter deprivation.”¹⁹⁹

¹⁹³ Task Force Meeting Report, *supra* note 59, at 10.

¹⁹⁴ Task Force Meeting Report, *supra* note 59, at 12, 14, 16-17, 34, 37-38, 39-40.

¹⁹⁵ For a discussion of this issue in relation to MICS, see WHO/UNICEF JOINT MONITORING PROGRAMME FOR WATER SUPPLY AND SANITATION, MEETING THE MDG DRINKING WATER AND SANITATION TARGET: THE URBAN AND RURAL CHALLENGE OF THE DECADE 24 (2006); and UNICEF, “Designing and Selecting the Sample,” MICS 3 Survey Manual 4.31-4.32, available at http://www.childinfo.org/files/MICS3_Chapter_4_-_Designing_and_Selecting_the_Sample_060219.pdf. For a discussion in relation to DHS, see Gora Mboup, “Social Indicators in the Urban Context: Urban Poverty and Health Study in Sub-Saharan Africa—Rationale, Methodology and Instruments,” Expert Group Meeting on Setting the Scope of Social Statistics, U.N. Doc. ESA/STAT/AC.88/35 (3 May 2003), 35/5.

¹⁹⁶ For example, one such enumeration in a slum in Kenya found that early estimates of the a slum’s population had significantly underestimated the number of households it contained. See Irene Karanja, *An Enumeration and Mapping of Informal Settlements in Kisumu, Kenya, implemented by their Inhabitants*, 22 ENVIRONMENT & URBANIZATION 217, 224 (2010). For more on enumerations carried out by slum dwellers’ organizations, see Shack/Slum Dwellers International, “Posts for Enumeration and Mapping,” available at <http://www.sdinnet.org/blog/categories/enumeration/>.

¹⁹⁷ See also Dr. Meera Mehta, “Water Supply and Sanitation in Slums: PAS Project, India,” Presentation at 2011 World Water Week, at slide 19 (survey design “to include purposive and adequate sample of slum settlements”), available at http://www.worldwaterweek.org/documents/WWW_PDF/2011/Wednesday/T5/Challenges-of-Monitoring-Drinking-water-and-Sanitation/Water-supply-and-sanitation-in-slums-PAS-project-India.pdf.

¹⁹⁸ See FATMA EL-ZANATY & ANN A. WAY, GREATER CAIRO SLUMS: A PROFILE BASED ON THE 2003 EGYPT DEMOGRAPHIC AND HEALTH SURVEY 1-3 (2004) available at <http://www.measuredhs.com/pubs/pdf/FA43/FA43.pdf>.

¹⁹⁹ UN-HABITAT, *Slum Cities and Cities with Slums*, STATE OF THE WORLD’S CITIES 2008/9 107 (2009).

A promising approach that should be explored is UN-HABITAT's Urban Inequity Surveys, which are aimed at monitoring water and sanitation services in urban settings through spatial representation of data. The samples are stratified to gather representative data for both slum and non-slum communities.²⁰⁰ The surveys break down data by gender and socioeconomic status:

UIS is based on a methodology that disaggregates urban water and sanitation service coverage by gender and socio-economic status, and displays the data spatially. Its main aim is to identify needs in terms of access to infrastructure and basic services (water, sanitation, solid waste management and drainage), such as sufficiency, safety and acceptability, affordability and physical accessibility. They also address different components of other human settlements issues such as durable housing, overcrowding, security of tenure, education, employment, social capital, income and expenditure, solid waste management, environment, health, livelihoods, transportation, in short, a comprehensive set of information on a majority of MDG indicators. The exercise involves the use of GIS to identify populations that are not served by water and sanitation facilities.²⁰¹

Although this level of granularity may be unwieldy for global monitoring, there may be approaches to using data concerning unserved populations (such as proportions, or levels of severity of deprivation within slums) that would be appropriate at the global level.

Recommendations relating to slum dwellers

- Consider using the deprivation index developed by UN-HABITAT in conjunction with the traditional data sources used by JMP as a means of analyzing which slum areas suffer greatest deprivations in relation to water and sanitation.²⁰²
- Explore the use of sector-specific surveys that would include more detailed data concerning slum conditions concerning water and sanitation, as supplements to global monitoring.²⁰³
- Consider supplementing global monitoring data through use of provider data, UN-HABITAT's Urban Inequities Surveys, and data collected by slum dwellers' organizations aimed at elucidating WASH conditions in slums.

²⁰⁰ UN-HABITAT, "Urban Inequity Survey," available at http://www.h20initiative.org/article/11002/Urban_Inequity_Survey.

²⁰¹ UN-HABITAT, "Urban Inequities Surveys," available at <http://www.unhabitat.org/content.asp?typeid=19&catid=635&cid=7659>.

²⁰² This recommendation is discussed in the Task Force Meeting Report, *supra* note 59, at 6.

²⁰³ This recommendation is discussed in the Task Force Meeting Report, *supra* note 59, at 7.