

**Independent Expert on the issue of human rights obligations
related to access to safe drinking water and sanitation**

**‘GOOD PRACTICES’ RELATED TO ACCESS TO
SAFE DRINKING WATER AND SANITATION**



Questionnaire

**February, 2010
Geneva**

Introduction

The Independent Expert on the issue of human rights obligations related to access to safe drinking water and sanitation, Ms. Catarina de Albuquerque, has been mandated by the Human Rights Council in 2008 to:

- Further clarify the content of human rights obligations related to access to safe drinking water and sanitation;
- Make recommendations that could help the realization of the Millennium Development Goals (MDG), and particularly of the Goal 7;
- Prepare a compendium of good practices related to access to safe drinking water and sanitation.

While the work of human rights bodies has often focused on the violations of human rights, the Independent Expert welcomes the opportunity to identify good practices that address the question of how human rights obligations related to sanitation and water can be implemented.

Methodology of the Good Practices consultation process

In a first step, the Independent Expert undertook to determine criteria for identifying ‘good practices’. As ‘good’ is a subjective notion, it seemed critical to first elaborate criteria against which to judge a practice from a human rights perspective, and then apply the same criteria to all practices under consideration. Such criteria for the identification of good practices were discussed with various stakeholders at a workshop convened by the Independent Expert in Lisbon in October 2009. The outcome was the definition of 10 criteria, 5 of which are normative criteria (*availability, accessibility, quality/safety, affordability, acceptability*), and 5 are cross-cutting ones (*non-discrimination, participation, accountability, impact, sustainability*). The Independent Expert and the stakeholders started testing the criteria, but believe that the process of criteria testing is an ongoing one: the criteria should prove their relevance as stakeholders suggest examples of good practices.

After this consultation and the consolidation of the criteria, the Independent Expert wants to use these to identify good practices across all levels and sectors of society. To that end, she will organize stakeholder consultations with governments, civil society organisations, national human rights institutions, development cooperation agencies, the private sector, UN agencies, and perhaps others. By bringing people from the same sector together to talk about good practices related to human rights, water and sanitation, she hopes to facilitate exchange of these good practices. In order to prepare the consultations through the identification of potential good practices, the present questionnaire has been elaborated. The consultations will be held in 2010 and 2011. Based on the answers to this questionnaire, and the stakeholder consultations, the Independent Expert will prepare a report on good practices, to be presented to the Human Rights Council in 2011.

The Good Practices Questionnaire

The questionnaire is structured following the normative and cross-cutting criteria, mentioned above; hence the Independent Expert is looking for good practices in the fields of sanitation and water **from a human rights perspective**. Therefore, the proposed practices do not only have to be judged ‘good’ in light of at least one normative criterion depending on their relevance to the practice in question (*availability, accessibility, quality/safety, affordability, acceptability*), but also in view of all the cross-cutting criteria (*non-discrimination,*

participation, accountability, impact, sustainability). At a minimum, the practice should not undermine or contradict any of the criteria.

Explanatory note: Criteria

Criteria 1-5: Normative criteria (availability, accessibility, quality/safety, affordability, acceptability). All these criteria have to be met for the full realization of the human rights to sanitation and water, but a good practice can be a specific measure focussing on one of the normative criterion, and not necessarily a comprehensive approach aiming at the full realization of the human rights. Hence, not all the criteria are always important for a given practice. E.g., a pro-poor tariff structure can be judged very good in terms of the affordability criterion, whilst the quality-criterion would be less relevant in the context of determining whether that measure should be considered a good practice.

Criteria 6-10: Cross-cutting criteria (non-discrimination, participation, accountability, impact, sustainability). In order to be a good practice from a human rights perspective, all of these five criteria have to be met to some degree, and at the very least, the practice must not undermine or contradict these criteria. E.g., a substantial effort to extend access to water to an entire population, but which perpetuates prohibited forms of discrimination by providing separate taps for the majority population and for a marginalized or excluded group, could not be considered a good practice from a human rights perspective.

Actors

In order to compile the most critical and interesting examples of good practices in the field of sanitation and water from a human rights perspective, the Independent Expert would like to take into consideration practices carried out by a **wide field of actors**, such as *States, regional and municipal authorities, public and private providers, regulators, civil society organisations, the private sector, national human rights institutions, bilateral development agencies, and international organisations.*

Practices

The Independent Expert has a broad understanding of the term “practice”, encompassing both policy and implementation: Good practice can thus cover **diverse practices** as, e.g., *legislation (international, regional, national and sub-national), policies, objectives, strategies, institutional frameworks, projects, programmes, campaigns, planning and coordination procedures, forms of cooperation, subsidies, financing mechanisms, tariff structures, regulation, operators’ contracts, etc.* Any activity that enhances people’s enjoyment of human rights in the fields of sanitation and water or understanding of the rights and obligations (without compromising the basic human rights principles) can be considered a good practice.

The Independent Expert is interested to learn about practices which advance the realization of human rights as they relate to safe drinking water and sanitation. She has explicitly decided to focus on “good” practices rather than “best” practices, in order to appreciate the fact that ensuring full enjoyment of human rights can be a process of taking steps, always in a positive direction. The practices submitted in response to this questionnaire may not yet have reached their ideal goal of universal access to safe, affordable and acceptable sanitation and drinking water, but sharing the steps in the process towards various aspects of that goal is an important contribution to the Independent Expert’s work.

Please describe a good practice **from a human rights perspective** that you know well in the field of

- drinking water; and/or
- sanitation

Please relate the described practice to the ten defined criteria. An explanatory note is provided for each of the criteria.

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In the following, on behalf of S.A.C.S., two different practices are portrayed. The perspective taken is not a stakeholder's, but an academic.

The answers are numbered according to the two different practices.

Structural
Analysis of
Cultural
Systems

1. Water collection from air humidity in arid regions

This practice has already been suggested by S.A.C.S. in reply to Decision 2/104 on Human Rights and Access to Water of the UN Human Rights Council.

Description of the practice:

Name of the practice:

Water collection from air humidity in arid regions applying *Pinus canariensis*.

Aim of the practice:

Supplying water to people in arid regions by collecting water from fog and air humidity in an highly effective manner, using the natural capability of a tree, *Pinus canariensis*, which is specialised to this purpose.

Target group(s):

People in arid regions without sufficient rainfall.

Partners involved:

There has been a preparatory meeting with the scientists of the Universidad de la Laguna (ULL), Tenerife, who are specialised in *P. canariensis* research. At the ULL, there are enough seedlings available to start such a project. Also, there has been preparatory correspondence with research scientists in several other countries, as well as with project partners in Namibia and Peru. The Technical University of Berlin is in touch with scientists in most of the countries apt for the implementation of this practice, so that the number of locations could easily be expanded.

Duration of practice:

Permanent supply of water.

Financing (short/medium/long term):

Only for the implementation, i.e. the planting of the trees, financing is needed. After that, the practice will be self-supporting.

Brief outline of the practice:

In many areas of the world, the supply of drinking water is very problematic due to aridity. However, in a number of those areas, although it does not rain, there is atmospheric humidity fog, sea mist, or nightly dew. In recent years, there have been several projects of trapping this moisture with large nets (cf. <FogQuest.org>). The results are very promising. If there is moisture that evaporates from the sea, villages and even small towns can be supplied with drinking water.

But those nets require constant manpower in terms of maintenance. Also, those nets are made of artificial material, and they do not really fit into the natural environment. They are, by far, not as effective as plants that are specialised for catching humidity from the air.

The probably most effective plant to serve this purpose is *Pinus canariensis*, a tree native to the Canary Islands. It is well-known for its capability of collecting air moisture, and has already been used for many centuries for this purpose. This tree would allow a much more effective and environmentally friendly way of supplying arid regions with drinking water than with fog-catching nets. Moreover, it would also help to establish or re-establish vegetation in a natural way. Agriculture would profit from it, too, because vegetables could be produced, watered with the help of *P. canariensis*.

In those places, where the net-projects are currently running, it is the right time now to plant *P. canariensis* seedlings underneath the nets, as there is constant watering to allow them to grow. They will soon replace the nets; the surface of the trees is much larger than the surface of the nets, thus enabling the moisture to condensate much more effectively. Within a few years, a population of *P. canariensis* will be established that collects many times more water than the nets. With regard to ecological aspects, the introduction of *P. canariensis* into the environments concerned does not cause a problem, since in those desert areas, there are no native trees that could be superseded, and the *P. canariensis* trees are easy to control. They are a natural alternative to the unnatural plastic nets, and can even help to enhance any local flora.

The functions of trees within different ecosystems with regard to collecting fog water have been studied intensively during the past years, both in general (Burkard et al., 2002; Hughes & Brimblecombe, 1994; Jauregui, 1991; Neal et al., 1993), and especially with regard to *P. canariensis* (Aboal et al., 2000; Grill et al., 2004; Morales et al., 1999; Page, 1974; Luis et al., 2004; Tausz, 1998). The tree grows in a wide range of climatic conditions; it can survive drought, heat, and some frost, it can live in areas from sea-level up to more than 2.000 m above sea-level. When a population of trees has been established, it additionally produces timber and fuel wood.

Areas, in which *Pinus canariensis* could be used for obtaining drinking water, include:

- Chile
- Dominican Republic
- Ecuador
- Eritrea
- Guatemala
- Haiti
- Israel
- Namibia
- Nepal
- Peru
- The Sultanate of Oman
- Venezuela
- Yemen

Generally, these are areas where there is air moisture, but the climatic conditions do not allow for a condensation of the humidity in the air, which is necessary for rainfall. S.A.C.S. would be very pleased to coordinate projects of implementing *Pinus canariensis* for the production of drinking water in such areas.

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1.1. How does the practice meet the criterion of availability?

Explanatory note: Availability

Availability refers to sufficient quantities, reliability and the continuity of supply. Water must be continuously available in a sufficient quantity for meeting personal and domestic requirements of drinking and personal hygiene as well as further personal and domestic uses such as cooking and food preparation, dish and laundry washing and cleaning. Individual requirements for water consumption vary, for instance due to level of activity, personal and health conditions or climatic and geographic conditions. There must also exist sufficient number of sanitation facilities (with associated services) within, or in the immediate vicinity, of each household, health or educational institution, public institution and place, and the workplace. There must be a sufficient number of sanitation facilities to ensure that waiting times are not unreasonably long.

Answer:

***P. canariensis* is an alternative to already existing nets. As the trees' surface is much larger than the surface of a net, the quantity of water collected can only increase with this practice. And in areas, where it is to be implemented without precursor nets, it will provide water where none has been provided before.**

1.2. How does the practice meet the criterion of accessibility?

Explanatory note: Accessibility

Sanitation and water facilities must be physically accessible for everyone within, or in the immediate vicinity, of each household, health or educational institution, public institution and the workplace. The distance to the water source has been found to have a strong impact on the quantity of water collected. The amount of water collected will vary depending on the terrain, the capacity of the person collecting the water (children, older people, and persons with disabilities may take longer), and other factors. There must be a sufficient number of sanitation and water facilities with associated services to ensure that collection and waiting times are not unreasonably long. Physical accessibility to sanitation facilities must be reliable at day and night, ideally within the home, including for people with special needs. The location of public sanitation and water facilities must ensure minimal risks to the physical security of users.

Answer:

In the present net collecting projects, the water is either fed into the public water pipe system or collected individually from taps beneath the nets. When *P. canariensis* replaces the nets, the distribution system can remain the same, with the amount of available water being increased.

1.3. How does the practice meet the criterion of affordability?

Explanatory note: Affordability

Access to sanitation and water facilities and services must be accessible at a price that is affordable for all people. Paying for services, including construction, cleaning, emptying and maintenance of facilities, as well as treatment and disposal of faecal matter, must not limit people's capacity to acquire other basic goods and services, including food, housing, health and education guaranteed by other human rights. Accordingly, affordability can be estimated by considering the financial means that have to be reserved for the fulfilment of other basic needs and purposes and the means that are available to pay for water and sanitation services.

Charges for services can vary according to type of connection and household income as long as they are affordable. Only for those who are genuinely unable to pay for sanitation and water through their own means, the State is obliged to ensure the provision of services free of charge (e.g. through social tariffs or cross-subsidies). When water disconnections due to inability to pay are carried out, it must be ensured that individuals still have at least access to minimum essential levels of water. Likewise, when water-borne sanitation is used, water disconnections must not result in denying access to sanitation.

Answer:

After the implementation, not only the amount of water will increase, but the water collection will become less costly. At present, the nets need constant maintenance, whereas the trees will be self-supportive.

1.4. How does the practice meet the criterion of quality/safety?

Explanatory note: Quality/Safety

Sanitation facilities must be hygienically safe to use, which means that they must effectively prevent human, animal and insect contact with human excreta. They must also be technically safe and take into account the safety needs of peoples with disabilities, as well as of children. Sanitation facilities must further ensure access to safe water and soap for hand-washing. They must allow for anal and genital cleansing as well as menstrual hygiene, and provide mechanisms for the hygienic disposal of sanitary towels, tampons and other menstrual products. Regular maintenance and cleaning (such as emptying of pits or other places that collect human excreta) are essential for ensuring the sustainability of sanitation facilities and continued access. Manual emptying of pit latrines is considered to be unsafe and should be avoided.

Water must be of such a quality that it does not pose a threat to human health. Transmission of water-borne diseases via contaminated water must be avoided.

Answer:

As presently with the nets, the water collected with *P. canariensis* needs to be passed through filters to ensure its purification from insects and other contaminations.

1.5. How does the practice meet the criterion of acceptability?

Explanatory note: Acceptability

Water and sanitation facilities and services must be culturally and socially acceptable. Depending on the culture, acceptability can often require privacy, as well as separate facilities for women and men in public places, and for girls and boys in schools. Facilities will need to accommodate common hygiene practices in specific cultures, such as for anal and genital cleansing. And women's toilets need to accommodate menstruation needs.

In regard to water, apart from safety, water should also be of an acceptable colour, odour and taste. These features indirectly link to water safety as they encourage the consumption from safe sources instead of sources that might provide water that is of a more acceptable taste or colour, but of unsafe quality.

Answer:

Whereas nets are unnatural objects, trees are accepted by all cultures. They add green to the landscape, and their shade helps the human body to recreate.

1.6. How does the practice ensure non-discrimination?

Explanatory note: Non-discrimination

Non-discrimination is central to human rights. Discrimination on prohibited grounds including race, colour, sex, age, language, religion, political or other opinion, national or social origin, property, birth, physical or mental disability, health status or any other civil, political, social or other status must be avoided, both in law and in practice.

In order to address existing discrimination, positive targeted measures may have to be adopted. In this regard, human rights require a focus on the most marginalized and vulnerable to exclusion and discrimination. Individuals and groups that have been identified as potentially vulnerable or marginalized include: women, children, inhabitants of (remote) rural and deprived urban areas as well as other people living in poverty, refugees and IDPs, minority groups, indigenous groups, nomadic and traveller communities, elderly people, persons living with disabilities, persons living with HIV/AIDS or affected by other health conditions, people living in water scarce-regions and sanitation workers amongst others.

Answer:

Since the amount of water is going to increase with the help of *P. canariensis*, there will be more water available per head than before.

1.7. How does the practice ensure active, free and meaningful participation?

Explanatory note: Participation

Processes related to planning, design, construction, maintenance and monitoring of sanitation and water services should be participatory. This requires a genuine opportunity to freely express demands and concerns and influence decisions. Also, it is crucial to include representatives of all concerned individuals, groups and communities in participatory processes.

To allow for participation in that sense, transparency and access to information is essential. To reach people and actually provide accessible information, multiple channels of information have to be used. Moreover, capacity development and training may be required – because only when existing legislation and policies are understood, can they be utilised, challenged or transformed.

Answer:

Whereas the nets are a specific synthetic material, the trees can be planted by everyone. And whereas the nets are in a fixed position that has been appointed at the beginning of the project, the trees can be planted by individuals in different locations.

1.8. How does the practice ensure accountability?

Explanatory note: Accountability

The realization of human rights requires responsive and accountable institutions, a clear designation of responsibilities and coordination between different entities involved. As for the participation of rights-holders, capacity development and training is essential for institutions. Furthermore, while the State has the primary obligation to guarantee human rights, the numerous other actors in the water and sanitation sector also should have accountability mechanisms. In addition to participation and access to information mentioned above, communities should be able to participate in monitoring and evaluation as part of ensuring accountability.

In cases of violations – be it by States or non-State actors –, States have to provide accessible and effective judicial or other appropriate remedies at both national and international levels. Victims of violations should be entitled to adequate reparation, including restitution, compensation, satisfaction and/or guarantees of non-repetition.

Human rights also serve as a valuable advocacy tool in using more informal accountability mechanisms, be it lobbying, advocacy, public campaigns and political mobilization, also by using the press and other media.

Answer:

It is very accountable and responsible to provide P. canariensis, as it not only increases the amount of water collected, but also enables people to implement this method in additional places individually.

1.9. What is the impact of the practice?

Explanatory note: Impact

Good practices – e.g. laws, policies, programmes, campaigns and/or subsidies - should demonstrate a positive and tangible impact. It is therefore relevant to examine the degree to which practices result in better enjoyment of human rights, empowerment of rights-holders and accountability of duty bearers. This criterion aims at capturing the impact of practices and the progress achieved in the fulfilment of human rights obligations related to sanitation and water.

Answer:

The impact will be less dependence from commercial water suppliers, and a general advancement for the people concerned.

1.10. Is the practice sustainable?

Explanatory note: Sustainability

The human rights obligations related to water and sanitation have to be met in a sustainable manner. This means good practices have to be economically, environmentally and socially sustainable. The achieved impact must be continuous and long-lasting. For instance, accessibility has to be ensured on a continuous basis by adequate maintenance of facilities. Likewise, financing has to be sustainable. In particular, when third parties such as NGOs or development agencies provide funding for initial investments, ongoing financing needs for operation and maintenance have to be met for instance by communities or local governments. Furthermore, it is important to take into account the impact of interventions on the enjoyment of other human rights. Moreover, water quality and availability have to be ensured in a sustainable manner by avoiding water contamination and over-abstraction of water resources. Adaptability may be key to ensure that policies, legislation and implementation withstand the impacts of climate change and changing water availability.

Answer:

It is much more sustainable than the present nets, which not only are unnatural, but also need constant man power to keep them working. P. canariensis is self-supportive, adds life quality, and can also be easily controlled in terms of preventing its spreading to places where it is not supposed to be. However, this practice is targeted to places without any other trees and with only small local vegetation that can even profit from the additional shade and moisture.

Final remarks, challenges, lessons learnt

Institutions that are involved in the net projects will need to be convinced of the P. canariensis practice, as well as environmentalists, who might be concerned by the introduction of a tree species. But convincing them will not be difficult, as the alternatives are much less helpful, both for the people concerned, and for the environment.

2. Using sewage water for producing petrol from algae

In this second description, a practice is portrayed, which is of high relevance for any community that produces sewage water in regions with medium to high solar irradiation.

Description of the practice:

Name of the practice:

Using sewage water for producing petrol from algae

Aim of the practice:

Producing petrol from algae, which are grown in sewage water.

Target group(s):

Any community that produces sewage water in regions with medium to high solar irradiation.

Partners involved:

Potential partners could be Sapphire Energy, who claim to be able to produce 91 octane petrol directly from algae; ExxonMobil / Craig Venter, who claim to yield 2,000 gallons of biodiesel per acre algae; or GroGasoline, who have designed an algae that exudes hydrocarbon oil as it grows, and which can be grown in open ponds.

Duration of practice:

Permanent use of sewage water for the environmentally friendly production of petrol.

Financing (short/medium/long term):

Financing is only needed for the implementation, as petrol can be sold profitably.

Brief outline of the practice:

Many communities in the world exist in regions with high insolation. In the sewage water from these communities, algae can be grown, which produce hydrocarbon oil. When harvested, up to 50 % of the algae mass consist of oil, which is practically identical with petrol.

While the algae grow, they take CO₂ from the atmosphere and release O₂ to the atmosphere. When the biofuel produced from algae is combusted, no more CO₂ can be exhausted to the atmosphere than is absorbed from it by the algae.

2.1. How does the practice meet the criterion of availability?

Explanatory note: Availability

Availability refers to sufficient quantities, reliability and the continuity of supply. Water must be continuously available in a sufficient quantity for meeting personal and domestic requirements of drinking and personal hygiene as well as further personal and domestic uses such as cooking and food preparation, dish and laundry washing and cleaning. Individual requirements for water consumption vary, for instance due to level of activity, personal and health conditions or climatic and geographic conditions. There must also exist sufficient number of sanitation facilities (with associated services) within, or in the immediate vicinity, of each household, health or educational institution, public institution and place, and the workplace. There must be a sufficient number of sanitation facilities to ensure that waiting times are not unreasonably long.

Answer:

All larger communities in the world produce sewage water, and the majority of communities exist in regions with medium to high solar irradiation. With these prerequisites, oil-producing algae can be grown anywhere.

2.2. How does the practice meet the criterion of accessibility?

Explanatory note: Accessibility

Sanitation and water facilities must be physically accessible for everyone within, or in the immediate vicinity, of each household, health or educational institution, public institution and the workplace. The distance to the water source has been found to have a strong impact on the quantity of water collected. The amount of water collected will vary depending on the terrain, the capacity of the person collecting the water (children, older people, and persons with disabilities may take longer), and other factors. There must be a sufficient number of sanitation and water facilities with associated services to ensure that collection and waiting times are not unreasonably long. Physical accessibility to sanitation facilities must be reliable at day and night, ideally within the home, including for people with special needs. The location of public sanitation and water facilities must ensure minimal risks to the physical security of users.

Answer:

Since algae can be grown in ponds, ditches, or otherwise, and since even small communities can use their sewage water for this purpose, this practice is accessible by almost any community.

2.3. How does the practice meet the criterion of affordability?

Explanatory note: Affordability

Access to sanitation and water facilities and services must be accessible at a price that is affordable for all people. Paying for services, including construction, cleaning, emptying and maintenance of facilities, as well as treatment and disposal of faecal matter, must not limit people's capacity to acquire other basic goods and services, including food, housing, health and education guaranteed by other human rights. Accordingly, affordability can be estimated by considering the financial means that have to be reserved for the fulfilment of other basic needs and purposes and the means that are available to pay for water and sanitation services.

Charges for services can vary according to type of connection and household income as long as they are affordable. Only for those who are genuinely unable to pay for sanitation and water through their own means, the State is obliged to ensure the provision of services free of charge (e.g. through social tariffs or cross-subsidies). When water disconnections due to inability to pay are carried out, it must be ensured that individuals still have at least access to minimum essential levels of water. Likewise, when water-borne sanitation is used, water disconnections must not result in denying access to sanitation.

Answer:

The algae can be grown without any sophisticated techniques, and the same accounts for the harvesting and extraction. Once the algae are available, the production can be handled easily.

2.4. How does the practice meet the criterion of quality/safety?

Explanatory note: Quality/Safety

Sanitation facilities must be hygienically safe to use, which means that they must effectively prevent human, animal and insect contact with human excreta. They must also be technically safe and take into account the safety needs of peoples with disabilities, as well as of children. Sanitation facilities must further ensure access to safe water and soap for hand-washing. They must allow for anal and genital cleansing as well as menstrual hygiene, and provide mechanisms for the hygienic disposal of sanitary towels, tampons and other menstrual products. Regular maintenance and cleaning (such as emptying of pits or other places that collect human excreta) are essential for ensuring the sustainability of sanitation facilities and continued access. Manual emptying of pit latrines is considered to be unsafe and should be avoided.

Water must be of such a quality that it does not pose a threat to human health. Transmission of water-borne diseases via contaminated water must be avoided.

Answer:

There are no specific risks involved in the growing of algae, in the harvesting and processing.

2.5. How does the practice meet the criterion of acceptability?

Explanatory note: Acceptability

Water and sanitation facilities and services must be culturally and socially acceptable. Depending on the culture, acceptability can often require privacy, as well as separate facilities for women and men in public places, and for girls and boys in schools. Facilities will need to accommodate common hygiene practices in specific cultures, such as for anal and genital cleansing. And women's toilets need to accommodate menstruation needs.

In regard to water, apart from safety, water should also be of an acceptable colour, odour and taste. These features indirectly link to water safety as they encourage the consumption from safe sources instead of sources that might provide water that is of a more acceptable taste or colour, but of unsafe quality.

Answer:

It can be expected that the acceptance of a facility, where oil-producing algae are grown in sewage water, will be higher than the acceptance of any ordinary wastewater plant, because the sewage water is used in a meaningful way, and yields some practical advantage.

2.6. How does the practice ensure non-discrimination?

Explanatory note: Non-discrimination

Non-discrimination is central to human rights. Discrimination on prohibited grounds including race, colour, sex, age, language, religion, political or other opinion, national or social origin, property, birth, physical or mental disability, health status or any other civil, political, social or other status must be avoided, both in law and in practice.

In order to address existing discrimination, positive targeted measures may have to be adopted. In this regard, human rights require a focus on the most marginalized and vulnerable to exclusion and discrimination. Individuals and groups that have been identified as potentially vulnerable or marginalized include: women, children, inhabitants of (remote) rural and deprived urban areas as well as other people living in poverty, refugees and IDPs, minority groups, indigenous groups, nomadic and traveller communities, elderly people, persons living with disabilities, persons living with HIV/AIDS or affected by other health conditions, people living in water scarce-regions and sanitation workers amongst others.

Answer:

Due to the simple methods, even marginalised groups can employ the practice, thus becoming more participatory in the social system.

2.7. How does the practice ensure active, free and meaningful participation?

Explanatory note: Participation

Processes related to planning, design, construction, maintenance and monitoring of sanitation and water services should be participatory. This requires a genuine opportunity to freely express demands and concerns and influence decisions. Also, it is crucial to include representatives of all concerned individuals, groups and communities in participatory processes.

To allow for participation in that sense, transparency and access to information is essential. To reach people and actually provide accessible information, multiple channels of information have to be used. Moreover, capacity development and training may be required – because only when existing legislation and policies are understood, can they be utilised, challenged or transformed.

Answer:

Even smaller communities can make use of the practice, and actively produce algae in a free manner, thereby participating meaningfully not only in their own community, but also having a positive impact on the world climate by counteracting the CO2 increase.

2.8. How does the practice ensure accountability?

Explanatory note: Accountability

The realization of human rights requires responsive and accountable institutions, a clear designation of responsibilities and coordination between different entities involved. As for the participation of rights-holders, capacity development and training is essential for institutions. Furthermore, while the State has the primary obligation to guarantee human rights, the numerous other actors in the water and sanitation sector also should have accountability mechanisms. In addition to participation and access to information mentioned above, communities should be able to participate in monitoring and evaluation as part of ensuring accountability.

In cases of violations – be it by States or non-State actors –, States have to provide accessible and effective judicial or other appropriate remedies at both national and international levels. Victims of violations should be entitled to adequate reparation, including restitution, compensation, satisfaction and/or guarantees of non-repetition.

Human rights also serve as a valuable advocacy tool in using more informal accountability mechanisms, be it lobbying, advocacy, public campaigns and political mobilization, also by using the press and other media.

Answer:

It is very accountable and responsible to produce petrol in an environmentally friendly way, instead of just disposing of sewage water.

2.9. What is the impact of the practice?

Explanatory note: Impact

Good practices – e.g. laws, policies, programmes, campaigns and/or subsidies - should demonstrate a positive and tangible impact. It is therefore relevant to examine the degree to which practices result in better enjoyment of human rights, empowerment of rights-holders and accountability of duty bearers. This criterion aims at capturing the impact of practices and the progress achieved in the fulfilment of human rights obligations related to sanitation and water.

Answer:

There are many positive impacts of this practice. One of them is counteracting the CO2 increase, because the more biofuel is produced, the less fossil fuel will be burnt. Also, there is reason to hope that the practice of producing fuel from sewage water will decelerate the expansion of oil palm plantations, which pose a severe threat to indigenous communities. Further, it could help to equalise the present situation, where the production of fuel is in the hands of only a few powerful groups.

2.10. Is the practice sustainable?

Explanatory note: Sustainability

The human rights obligations related to water and sanitation have to be met in a sustainable manner. This means good practices have to be economically, environmentally and socially sustainable. The achieved impact must be continuous and long-lasting. For instance, accessibility has to be ensured on a continuous basis by adequate maintenance of facilities. Likewise, financing has to be sustainable. In particular, when third parties such as NGOs or development agencies provide funding for initial investments, ongoing financing needs for operation and maintenance have to be met for instance by communities or local governments. Furthermore, it is important to take into account the impact of interventions on the enjoyment of other human rights. Moreover, water quality and availability have to be ensured in a sustainable manner by avoiding water contamination and over-abstraction of water resources. Adaptability may be key to ensure that policies, legislation and implementation withstand the impacts of climate change and changing water availability.

Answer:

The practice is very much in accord with MDG Goal 7. A large scale implementation of this practice would be a great leap forward towards environmental sustainability, since growing algae in sewage water itself is an environmentally sustainable practice. With regard to the use of the produce, there is no new infrastructure needed to run cars with biofuel from algae, whereas other approaches of reducing emissions, like electric vehicles run by solar electricity, are very costly, are energetically quite inefficient, and the equipment contains highly toxic materials. Also, once the ponds and harvesting methods are established, the practice is self-sustaining.

Final remarks, challenges, lessons learnt

There could be a problem with regard to those algae that have been patented, like the variety Ninsei, which is patented by GroGasoline. But that could be solved by either using a non-patented variety, or by negotiations with the patent owners.

Submissions

In order to enable the Independent Expert to consider submissions for discussion in the stakeholder consultations foreseen in 2010 and 2011, all stakeholders are encouraged to submit the answers to the questionnaire at their earliest convenience and no later than 30th of June 2010.

Questionnaires can be transmitted electronically to iewater@ohchr.org (encouraged) or be addressed to

Independent Expert on the issue of human rights obligations related to access to safe drinking water and sanitation.

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Please include in your submissions the name of the organization submitting the practice, as well as contact details in case follow up information is sought.

Your contact details

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The Independent Expert would like to thank you for your efforts!

For more information on the mandate of the Independent Expert, please visit
<http://www2.ohchr.org/english/issues/water/Iexpert/index.htm>