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Promotion and protection of human rights: human rights questions, including alternative approaches for improving the effective enjoyment of human rights and fundamental freedoms

Human rights to safe drinking water and sanitation

Note by the Secretary-General

The Secretary-General has the honour to transmit to the General Assembly the report of the Special Rapporteur on the human rights to safe drinking water and sanitation, Léo Heller, submitted pursuant to Assembly resolution [64/292](#) and Human Rights Council resolution [33/10](#).

* [A/74/150](#).



Report of the Special Rapporteur on the human rights to safe drinking water and sanitation

Summary

Megaprojects are double-edged: they may contribute towards the enhancement of people's livelihoods but may also impede the enjoyment of the human rights to water and sanitation. In order to prevent and mitigate the risks arising from such projects and to ensure compliance with human rights, the Special Rapporteur is introducing a megaproject cycle framework for the realization of the human rights to water and sanitation, consisting of seven stages, each of them entailing impacts on access to water and sanitation, challenges and enabling factors to realize the human rights to water and sanitation. He clarifies each stage of the megaproject cycle and provides a list of questions that constitute guidelines for accountable actors to implement their human rights obligations and responsibilities.

I. Introduction

1. Pursuant to Human Rights Council resolution 33/10 of 2016, the Special Rapporteur on the human rights to safe drinking water and sanitation, Léo Heller, was mandated to work on identifying challenges and obstacles to the full realization of those rights, as well as protection gaps, good practices and enabling factors. In the present report, he focuses on the impact of megaprojects on the realization of the human rights to water and sanitation and proposes the megaproject cycle as a framework to clarify how a human rights-based approach can be implemented. In doing so, he further provides a practical set of questions that accountable actors can follow to ensure the realization of the human rights to water and sanitation at each stage of the megaproject cycle.

2. Throughout the stages of their lifecycle, megaprojects have a long-lasting impact on various aspects of the society, including human lives, the economy and the environment. Such projects are promoted through a narrative of contributing towards the enhancement of the livelihood of the people, but they often impede the enjoyment of the human rights to water and sanitation. In particular, the extensive usage of land required for the implementation and the massive exploitation of water sources may have dire consequences for the availability and quality of water and, in general, for the way the population accesses water and sanitation services. In the words of an anonymous commentator, “megaprojects are projects that often produce death instead of promoting life”. The Special Rapporteur observed some of those impacts during his official visits, and also addressed them in allegation letters.¹

3. The types of megaprojects range from infrastructure projects, extractive industries, energy production projects, water supply systems and transport projects to mega-events, inter alia. In order to take a non-restrictive approach to addressing the impact of such projects on the human rights to water and sanitation, the Special Rapporteur does not limit the scope of the report to specific types of megaproject. Rather, the scope of the present report is broad and encompasses projects that potentially cause significant impacts on the human rights to water and sanitation and that implicate either an extensive use of land, significant modification of water resources or a long implementation period.

4. The wide range of megaprojects mirrors the extensive array of impacts arising therefrom and the implication for the exercise of various human rights by groups in vulnerable situations and, in particular, by indigenous peoples, whose lifestyles are often centred around water. While the effects on access to water are one of the most notable consequences of many types of megaprojects, they also affect other interlinked rights, and therefore the present report addresses broader dimensions that such projects have on human rights. The report also takes into account broad-ranging issues, in line with the concept of “environmental injustice”, which includes the negative impacts caused by humans on the environment, focusing on the unjust inequalities and discriminations that lead to the increased impacts on certain groups and populations which are already in vulnerable situations. The impact of megaprojects on the environment, water resource governance, social conflicts, livelihoods or human rights may be either exacerbated by or aggravate critical global challenges such as climate change, demographic changes, the migration crisis and armed conflicts.

5. As part of the development of the report and consultation process, the Special Rapporteur sent questionnaires to States, civil society organizations and business enterprises, which elicited 33 submissions.² In addition, he convened a public

¹ See www.ohchr.org/EN/Issues/WaterAndSanitation/SRWater/Pages/MegaProjects.aspx.

² Ibid.

consultation on 11 September 2018 and two expert consultations, on 12 November 2018 in Malaysia and on 13 March 2019 in Mexico. Furthermore, he convened several virtual consultations to accommodate remote participation of stakeholders.

6. The report begins by identifying the human rights gaps in the existing regulatory framework amid developments in megaprojects (sect. II). Thereafter, specific cases of the impacts of such projects are introduced, according to the normative content of the rights to water and sanitation (sect. III). The Special Rapporteur suggests that the framework on the human rights to water and sanitation can be an enabling framework for the regulation of megaprojects and, for the present analysis, he breaks down each stage of the megaproject cycle, presented in section IV. The report provides a list of questions to enable relevant actors to incorporate human rights assessment at each stage of the cycle.

II. Human rights concerns in current trends and frameworks

A. Current trends

7. Megaprojects have been growing in size, number and diversity over the years and have frequently become the preferred model for projects such as infrastructure, water and energy, the extractive industries, urban regeneration and mega-events. Presented as a means of economic development, the demand for megaprojects and, in particular, infrastructure development, is on the rise. The global megaproject market represents from \$6 to 9 trillion per year, or approximately 8 per cent of global gross domestic product (GDP), with projections for a further increase due to that trend.³ Megaprojects may be subject to a multiplying effect, whereby the implementation of one leads to the implementation of others that are necessary for their operation, thereby amplifying the consequences. Another distinct feature of megaprojects is their cumulative impact, whereby insignificant impacts on the environment and society can become highly significant, and damage can be extended in a complex manner over time and space, through a combination of several factors, including the interaction between a project, other megaprojects and the environmental conditions. In some situations, those impacts can be irreversible.

8. Megaprojects are often argued as being necessary to meet different targets of the Sustainable Development Goals, in order to end poverty and inequalities and to achieve sustainable development. The substantial gap between the investment needed to achieve the Goals and the actual investment is often identified as a challenge. For example, in Asia, the need for more investment in infrastructure leads to the so-called “infrastructure gap”⁴ and it is projected that this will inevitably attract regional and international development banks or private capital and investors and involve private actors through public-private partnerships or other investment models.⁵ The outcome is likely to be an increased incentive to implement megaprojects, through the involvement of private actors or capital investors, who often prioritize their own economic interests. This raises a concern as to whether and to what extent regulation and safeguards are sufficient to ensure human rights protection and a balance between the need for infrastructure and the need to safeguard the protection of human rights when such infrastructures develop.

³ Bent Flyvbjerg, “What you should know about megaprojects and why: an overview,” *Project Management Journal*, vol. 45, no. 2, (2014), pp. 6–19.

⁴ Asian Development Bank, “Meeting Asia’s Infrastructure Needs” (2017), pp. 39–44.

⁵ PricewaterhouseCoopers, “Understanding infrastructure opportunities in ASEAN”, Infrastructure Series report 1, 2017.

9. Another important observation is the imbalance of power between those adversely affected by megaprojects and the proponents thereof, who frame them as solutions for development. The affected population is often reluctant to accept such projects as the most suitable solution for development, since for them the negative impacts exceed the benefits provided. At times, this polarized view of megaprojects further aggravates social conflicts and may increase incidents of corruption by certain actors in the pursuit of economic interests. It is essential to regulate such projects with an emphasis on human rights, to address power imbalances and to mitigate and prevent their adverse effects on human rights.

B. Gaps in the existing regulatory framework

10. The increase in the number of megaprojects and their implementation without adequate human rights safeguards poses a dangerous trend for human rights in general, and the human rights to water and sanitation in particular. Given the diversity of such projects, the range of actors involved is also diverse and various regulatory frameworks therefore apply to those actors and to the different types of projects. Irrespective of that diversity, States have an important role and human rights obligations to protect by regulating third parties to ensure that they avoid, prevent or redress the negative consequences of their actions. Non-State actors, including international funders and multilateral financial institutions, are also bound by international human rights law and international environmental law ([A/71/302](#) and [A/72/127](#)).

11. Several international instruments regulate key international development actors, such as financial entities and investors who are closely associated with megaprojects. However, these instruments often fail to incorporate the normative content of the human rights to water and sanitation, and human rights principles as a whole, and lack “teeth” in terms of their legal enforcement. For instance, the Environmental and Social Performance Standards of the International Finance Corporation provide guidelines for parties responsible for implementing and operating projects, to identify, avoid, mitigate and manage environmental and social risks and impacts, which are non-binding and not grounded in the human rights framework. The internal instruments of financial institutions are also insufficient and do not incorporate human rights as a whole. The Special Rapporteur identified several international funders lacking sufficient policy and internal tools to incorporate the human rights to water and sanitation in the performance and operational standards ([A/71/302](#)). Such gaps clearly imply a lack of adequate safeguards in the implementation of megaprojects.

12. Private enterprises, including both national and transnational corporations, that construct and operate megaprojects have human rights responsibilities. The United Nations Guiding Principles on Business and Human Rights: Implementing the United Nations “Protect, Respect and Remedy” Framework provide a standard with regard to the State’s duty to protect, the responsibility of business enterprises to respect human rights and to provide access to remedies for victims of business-related abuses. Another related development is the ongoing work of the open-ended intergovernmental working group on transnational corporations and other business enterprises with respect to human rights with the mandate to elaborate an international legally binding instrument to regulate the activities of transnational corporations and other business enterprises (Human Rights Council resolution [26/9](#)), which includes elements to address human rights abuses in the context of transnational business activities and to hold natural and legal persons liable for human rights abuses.

13. As mentioned above, frameworks have been developed to identify, control and redress the environmental and social impacts of international development actors.

However, they target a limited set of actors or activities, are largely voluntary in nature and do not focus on the specificities of the human rights to water and sanitation. Furthermore, these instruments often fail to fully incorporate the normative content of the human rights to water and sanitation and human rights principles, as they are included in a partial manner which inevitably translates into protection gaps in practice, in particular for megaprojects.

C. Social conflicts and human rights defenders

14. The impacts arising from the human rights gaps in the existing regulatory framework, as well as the power imbalance between the proponents of and those impacted by projects, have spurred the emergence of social conflicts, in particular in the field of the human rights to water and sanitation. Communities affected by such negative impacts protest against megaprojects in various ways, ranging from peaceful protest to the occupation of project premises. Such situations often give rise to reactions from the actors involved, such as private military and security contractors or public security forces, as well as confrontations with employees working on the project, which may lead to physical conflicts. At times, conflicts are also provoked by a lack of or inappropriate consultation, in which the concerns of affected communities are not taken into account.

15. Human rights defenders advocating the rights of those affected by megaprojects have faced harassment, physical assault, bodily injuries and even death. Among numerous examples, one relates to the underground oil pipeline constructed under Lake Oahe in the United States of America, which was initiated without the free, prior and informed consent of the affected Sioux tribe. Between the authorization in 2016 and the completion of the pipeline in 2017, the Tribe expressed its strong opposition to the project through peaceful protests, resulting in intimidation, harassment, aggression and the detention of members of the Tribe (USA 7/2016). Another example was in the Pomio region of Papua New Guinea, where the villagers held a protest in order to protect drinking water from an agreement whereby indigenous peoples would allow the State to lease the land to a company. Protestors were beaten and locked for several days in iron shipping containers with no ventilation or toilet facilities (PNG 1/2014). Yet another example was in 2018, when the communities of the district of Tuticorin, India, organized a march against the ongoing contamination of groundwater, allegedly caused by the copper smelting plant operated by the Sterlite Copper company. During the march, police forces fired at the protesters, killing at least 12 and injuring more than 60 people (IND 12/2018).

16. In addition, there have been several allegations that the implementation of megaprojects has been associated with persecution, judicialization and other types of attack against human rights defenders which violate a number of their rights, such as freedom of expression and freedom of assembly. The Special Rapporteur on the situation of human rights defenders has highlighted that individuals and groups facing threats are those who oppose land grabbing, extractive industries, the industrial timber trade and large-scale development projects and that, in this regard, Latin American and Asia have been the most hostile regions for environmental human rights defenders (A/71/281, paras. 31 and 34).

III. Impacts, prevention and corrective measures

17. The normative content of the human rights to water and sanitation and human rights principles provides a framework for the identification of: abuses and violations of human rights due to the impact of megaprojects on access to services; the actors

accountable; and the way forward for megaprojects to take into account the priorities of affected populations. While the impact of megaprojects is largely focused on water availability and quality, the concurrent impact on the right to sanitation should not be underestimated. The rights to water and sanitation are distinct but interlinked rights, and adequate sanitation facilities often rely on the availability of sufficient water to function.

18. A specific feature of megaprojects impacts is that they are observed beyond national boundaries. Impacts of megaprojects on transboundary watercourses include contamination originating in one country that affects communities in another country and the retention or over-use of water in an upstream country, causing water scarcity in downstream countries. One example is the 81 mining projects located on the borders of El Salvador, Guatemala and Honduras, which have impacted on the quantity and quality of the surface waters in Guatemala and Honduras and, as a result, the access to water of people living in El Salvador. In particular, the Lempa River, which rises in Guatemala and flows through Honduras and El Salvador, is the largest and most important river, upon which El Salvador relies for drinking water. The Special Rapporteur addressed the transboundary impact on water during his official visit to El Salvador and recommended that the Government, in cooperation with neighbouring countries, establish “treaties which ensure sound management of transboundary river basins and assert that the use of water for humankind has priority over other uses” (A/HRC/33/49/Add.1, para. 98). He reiterates that States have obligations to ensure that any activities undertaken in their territory do not deprive another country of the ability to realize the right to water for persons in its jurisdiction (see Committee on Economic, Social and Cultural Rights, general comment No. 15 on the right to water, para. 31).

A. Availability

19. Water has to be continuously available, in sufficient quantity for drinking, personal hygiene and domestic uses. When deciding how water resources are to be used by a megaproject, States therefore need to implement mechanisms and alternative water sources to guarantee that project operation does not deplete water sources and that sufficient water for drinking and domestic purposes is provided on an ongoing basis. Several megaprojects, in particular those that involve the production of hazardous substances such as metal, coal and gold, deplete water sources, as water is used to process such substances (see A/HRC/21/48). The depletion of water resources also has direct repercussions on the lives of indigenous peoples and others dependent on the water as a source of drinking water, subsistence farming, fishing and grazing cattle (A/HRC/18/35, para. 31, and A/HRC/36/45/Add.2, para. 58).

20. Priority in the allocation of water must be given to the right to water for personal and domestic uses; however, in the case of megaprojects, priority is often given to their own requirements, to the detriment of populations relying on the resources concerned. The impact on the availability of water for individuals has been illustrated in several existing megaprojects, as the priority of allocation was given to the operation of the project. Examples of such practices are: hydraulic fracturing or “fracking”, intensive agriculture, energy production, industrial production or projects diverting water originally used for drinking or domestic purposes to other residential areas or infrastructures. For instance, the POSCO Corporation, a steel company, has carried out several projects in India, including mining, steel processing plant and associated infrastructure projects. The projects resulted in a diversion of 120 billion litres of water used for domestic purposes, which led to serious risks to the ability of families to access sufficient water for their household use (IND 7/2013). Another example is in Iztapalapa in Mexico City, where water was diverted to supply other

residential and commercial areas, as well as for megaprojects. It was reported that, as a consequence, many people in the area had limited access to water (A/HRC/36/45/Add.2, para. 21).

21. The priority of water for human consumption in one country is at times in competition with that in another country. The Lesotho Highlands Water Project, based on a bilateral agreement between Lesotho and South Africa, is the largest water transfer scheme in Africa, involving the construction of dams to divert water from Lesotho to South Africa. The water transfer scheme results in an incongruous situation, whereby several villages near the dams do not have access to water although the water reservoir is immediately next to them – a striking case of environmental injustice. As the Special Rapporteur emphasized, several reservoirs in Lesotho deliver water to South Africa, leaving some of the Basotho people thirsty (A/HRC/42/47/Add.1).

22. Human rights impact assessment of water and sanitation should ensure that water used for human and domestic purpose is prioritized and that, where water sources are deviated to meet the requirements of megaprojects, alternative solutions must be in place. Such alternative solutions should comply with the relevant human rights standards and respect the cultural values of affected populations. Measures should also be in place to ensure that displaced populations are provided with adequate water and sanitation facilities.

B. Accessibility

23. Megaprojects may affect the physical accessibility to water, as a result of depletion or contamination of water sources. Such impacts force the affected population to seek other sources of water, which are frequently located further from the original source. For instance, in Argentina, further to the construction of the Nihuil Hydroelectric Dam, the Atuel River dried out and the level of salinization increased, undermining drinking water availability and quality for the population in Mendoza and La Pampa provinces (ARG 1/2014). The affected populations had to rely on alternative services, such as water delivered in barrels or water tankers from another source.

24. Women and girls are particularly affected by megaprojects, as they often perform the role of water providers, and it takes them longer to fetch water or take paths that are dangerous when water is not accessible. In Colombia, for example, the construction of the El Cercado Dam, in La Guajira municipality, led to some stretches of the river temporarily drying up. As a result, the water supply of the Wayuu indigenous peoples was discontinued, and women and children had to travel long distances to access water from a well and transport it by donkeys (COL 8/2016).

25. Human rights impact assessments of water and sanitation should include plans and implementation measures to avoid the impact on the physical accessibility of water sources or sanitation facilities and, when necessary, provide alternative services. Additionally, the impact on access to sanitation facilities due to lack of accessibility to water needs to be taken into account.

C. Quality and safety

26. Water contamination or degradation of water quality is a significant impact arising from the way in which water resources are managed, from substances used in certain megaprojects. In particular, megaprojects in the mining sector and other industries using hazardous substance pose risks to water quality in the event of

mismangement and disasters. Hazardous substances used in the megaprojects may be released, dumped or drained into water systems, contaminating not only the water sources of the population living in the immediate area around the project areas but also of communities living downstream. For example, in 2014, the Sonora River in Mexico was contaminated with acidified leachates of copper sulphate owing to the collapse of a tailing dam operated by the mining company, Buenavista del Cobre (MEX 10/2016). As a result, sludge containing polluting substances affected drinking and domestic water sources of the population, entailing a grave risk to health. Another well-known set of cases is the collapse of tailing dams in Brazil, which are described in the following section of the report.

27. Agro-industrial activities may also pollute water sources by the use of pesticides and fertilizers. For example, in 2015, La Pasión River in Guatemala, which provided water for domestic uses to around 12,000 persons, was contaminated with malathion, allegedly used by a palm oil company. Owing to the contamination, people were prevented from using the water from the river for drinking and washing on account of health risks (GTM 4/2015). In Cambodia, in 2011, as a result of a concession of land to five Cambodian subsidiaries of a China-based sugarcane enterprise, ponds and rivers that were sources of water for human consumption were impacted by wastes and chemicals used for sugarcane fields (KHM 6/2018).

28. Access to water of poor quality is due not only to the contamination of water sources, but also to the provision of inadequate services. In the above-mentioned case of the Nihuil Hydroelectric Dam in Argentina, an aqueduct was put in place to provide populations with drinking water; however, the infrastructure did not meet the minimum requirements and water provided by the aqueduct – installed as an alternative source – was often dirty and contaminated (ARG 1/2014).

29. Human rights impact assessment, in particular on water and sanitation, should take into account how effluents released by megaprojects impact on water quality and the existence of preventive measures to avoid contamination of water resources in the first place. Alternative sources as a means of redress should meet the quality standard for drinking water.

D. Affordability

30. While megaprojects may not have direct consequences on the affordability of water and sanitation services, the lack of accessibility to and availability of original water sources as a result of megaproject activities lead to populations resorting to alternative water sources that may be less affordable. For example, as a consequence of the contamination of water resources by mining industries in the Cerro de Pasco Basin, Peru, some residents used shallow wells as alternative water sources; however, owing to heavy metal contamination found in such alternative sources, access to drinking water was mostly restricted to bottled water, which was an expensive option for the affected population (PER 1/2018).

31. Human rights impact assessment of water and sanitation should ensure that impact on accessibility, availability and quality of water does not lead to a secondary impact whereby the alternative source of water is unaffordable or the sanitation facilities in relocated areas are unaffordable.

E. Acceptability

32. Megaprojects do not directly impact the acceptability of water and sanitation services. However, the lack of accessibility to and availability of original water

sources, as a result of megaproject activities, may mean that the population resorts to water and sanitation facilities that are less than acceptable.

33. Human rights impact assessment of water and sanitation should ensure that secondary impact, whereby the alternative source of water and sanitation facilities are not acceptable, is avoided or mitigated.

F. Access to information

34. Access to information is particularly relevant in the context of megaprojects, as the projects involve technical and large-scale information that is difficult for the public to understand. Additionally, difficulties arise as information is subject to the pretext that it is confidential business information. As reiterated by the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, “information relevant to the protection of ... human rights should never be considered confidential” (A/HRC/30/40, para. 101).

35. Access to information is crucial for communities affected by megaprojects as it empowers them to participate in decision-making activities, to take action or to file legal or administrative complaints against accountable actors. Such rights resonate with the dimension of answerability under the accountability framework, which refers to the requirement for actors to provide explanations and reasoned justification for their actions, inaction and decisions to the people affected by them, as well as the public at large (A/73/162, para. 59). In addition, the obligations of States to provide public access to information by collecting and disseminating and by providing affordable, effective and timely access to them to any person upon request is included in the framework principles on human rights and the environment (principle 7).

36. Human rights impact assessment of water and sanitation should ensure that the information provided is relevant, pertinent and timely. It should also be accessible according to the means available to the relevant population and presented in a manner understandable to them.

G. Participation

37. In many cases, negative impacts of megaprojects are related to the lack of proper consultation with affected communities. Consultations help actors involved in megaprojects in understanding the sociocultural particularities of the watershed and region, the concerns and difficulties of local communities and the attachment to and management of water resources by indigenous peoples. Decisions need to be taken together with the affected communities, and any development project should not move ahead without the free, prior and informed consent of those communities, who must be consulted in good faith (United Nations Declaration on the Rights of Indigenous Peoples, art. 32). More generally, States should provide and facilitate public participation in decision-making related to the environment and take the views of the public into account in the decision-making process (framework principles on human rights and the environment, principle 9). Similarly, corporations should identify potentially affected groups and other stakeholders, ensuring that such groups are engaged in meaningful consultation (Guiding Principles on Business and Human Rights, principle 18).

38. For example, in 2013, the Supreme Court of Mexico took a decision on a grievance presented by representatives of the Yaqui people on the violations of their human rights to the territory, to consultation and to a healthy environment by the

Independencia Aqueduct project (for an aqueduct transferring water from the Yaqui River to the city of Hermosillo).⁶ The Court declared that the environmental impact assessment, according to which the operation clearance of Independencia Aqueduct was granted in 2011, was groundless since the authority had not met its duty to obtain the free, prior and informed consent of the Yaqui people, who were directly affected by the project. In accordance with the Court decision, in 2013, the Environment Secretary initiated a consultation process with the Yaqui people (MEX 10/2015).

39. Human rights impact assessment of water and sanitation should identify the affected population, including both populations whose access to water and sanitation is directly impacted and those who are indirectly impacted. The populations should be consulted in good faith and the project initiated only with the free, prior and informed consent of the affected population.

H. Access to remedy

40. Grievance, accountability and reparation mechanisms are crucial for affected populations to claim breaches of their human rights caused by megaprojects, in particular when communities have not been able to participate in the early stages of a megaproject. States should provide for access to effective remedies for violations of human rights and domestic laws relating to the environment (framework principle on human rights and the environment, principle 10). Where businesses are involved, the Guiding Principles on Business and Human Rights also stipulate that States have the duty to establish mechanisms to “prevent, investigate, punish and redress” human rights violations caused by business companies within their territory (principle 1). Similarly, “where business enterprises identify that they have caused or contributed to adverse impacts, they should provide for or cooperate in their remediation through legitimate processes” (principle 22).

41. Access to remedy must be accompanied by an enforcement framework that guarantees the implementation thereof. One example of the lack of implementation is the case of the negative impacts on the only source of drinking water of communities, affected by the release from the Bajo Anchicayá hydroelectric plant in Colombia. Redress measures to compensate for such harm and to recover the water body were adopted in 2001, but not implemented until at least 2013. The company responsible and the Government were ordered to pay compensation to the affected communities. However, that decision has been appealed several times and there is no information that the redress measures have been implemented to date (COL 4/2013).

42. Human rights impact assessment of water and sanitation should assess whether there are adequate guarantees that redress and reparation measures will be provided in an appropriate and timely manner. Appropriate and enforceable frameworks should be in place to ensure that redress measures are implemented.

IV. Incorporating the human rights to water and sanitation in the megaproject lifecycle

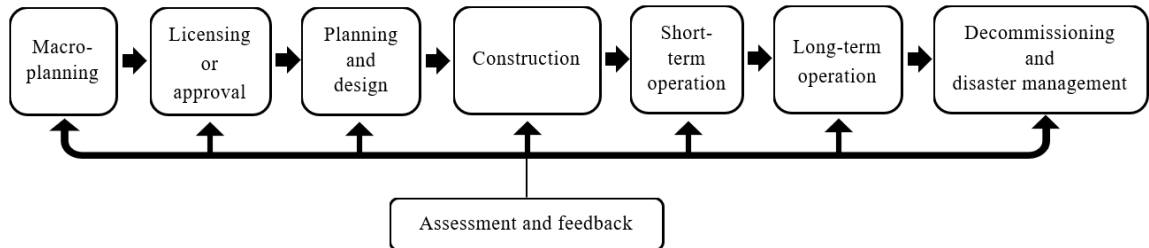
43. The Special Rapporteur hereby introduces the framework of megaproject cycle for the realization of the human rights to water and sanitation, consisting of seven stages, each of which entails different impacts on access to water and sanitation, challenges and enabling factors to realize the human rights to water and sanitation.⁷

⁶ Supreme Court of Mexico, *Amparo en Revisión 631/2012*, May 2013.

⁷ See a detailed diagram of the cycle at: <http://www.ohchr.org/EN/Issues/WaterAndSanitation/SRWater/Pages/MegaProjects.aspx>.

He clarifies each stage of the megaproject cycle and provides a list of questions that constitute guidelines for accountable actors to implement their human rights obligations and responsibilities. Such questions stem from existing human rights norms and principles and are therefore aimed at providing guidance as opposed to creating new standards or obligations.

Stages of the megaproject cycle



44. The seven stages of megaprojects do not necessarily apply to all megaprojects, nor do they address each and every cycle of a particular megaproject. Rather, the stages are illustrated by way of reference and are based on decision-making steps that are common to several types of megaprojects. The stages therefore do not necessarily constitute a linear timeline, and there are overlapping human rights concerns, sometimes where challenges and good practices identified at one stage bring about consequences at subsequent stages. The first two stages – the macro-planning stage and the licensing or approval stage – refer to the general procedures that are found in a country and the subsequent stages – from the planning to the decommissioning of megaprojects – describe the stages that are relevant to a megaproject.

45. The cycle includes a cross-cutting stage, namely, assessment at the different stages of a given megaproject, with a focus on the human rights to water and sanitation. Assessment is a constructive learning process that provides feedback for various stages of subsequent megaprojects. Human rights assessment of water and sanitation includes examination of the impacts of megaprojects on the human rights to water and sanitation, including the access to information and remedy, as well as the participation of the affected persons (see sect. III).

Question 1: Are the lessons learned from assessment of one stage taken into account as feedback for subsequent stages of megaprojects or new megaprojects?

46. The lessons learned from the assessment of human rights impacts, in particular of water and sanitation, performed at different stages of one or various megaprojects, should feed into the subsequent stages of the lifecycle and other new megaprojects. This procedure ensures progressive improvement in the conceptualization, implementation and operation of megaprojects and also ensures that recurrences of human rights infringements are prevented.

A. Macro-planning

47. Macro-planning is the stage at which national development agenda and plans are established, together with the identification of the means to achieve the related goals. This is the stage at which megaprojects are first identified as pillars of the development agenda and are conceptualized. During this stage, several aspects of megaprojects, such as the area of its implementation, duration and the actors involved, begin to take shape. While not often understood as being part of a specific megaproject, macro-planning is a strategic stage, as it allows actors to take into consideration the combined and cumulative impacts of megaprojects included in the development agenda.

Question 2: Does the national development planning explicitly incorporate impact assessment that includes the human right to water and sanitation?

48. The human rights to water and sanitation are relevant not only to national planning exercises in the water sector but should also be considered in other national development planning and infrastructure development involving projects that may have an impact on water availability and quality, among other elements of the normative content of the rights. It is important that water and sanitation, in particular the impact on access to those services, are considered when it comes to strategies and plans of action, even in a seemingly unrelated sector such as infrastructure development.

49. Both national development policies and specific sector policy drive the development of the industry and megaprojects. For instance, in Bangladesh, controversies surrounding the approval of a new national coal policy and whether the country should impose a nationwide ban on open pit mining blocked the commencement of coal mining projects, in particular the Phulbari Coal Project, that had already been concluded in a contract between the Government of Bangladesh and Global Coal Management Resources for exploration and mining of coal, following environmental clearance from the Government in 2005 (BGD 7/2011). Most recently, El Salvador adopted a law prohibiting metal mining in 2017, which bans metal mining specifically, and other large-scale mining has been restricted owing to the political climate surrounding the adoption of the law.⁸

Question 3: Is the formulation of national development plans grounded in a consultation process?

50. Consultation with the population can be part of the human rights impact assessment or as a stand-alone process. The views and concerns of civil society should be taken into account when making crucial decisions, such as those related to development agendas, and any development project should not move ahead without the free, prior and informed consent of the affected peoples, who must be consulted in good faith (United Nations Declaration on the Rights of Indigenous Peoples, art. 32). For example, Togo undertakes a “villager action plan” to define the priority actions for each locality and uses it as a reference to identify megaprojects.⁹ In the Maldives, elected island councils are responsible for formulating development plans for the island and they need to be formulated with public participation. The Government of the Maldives formulates the national development agenda after taking into account the development plans of the islands submitted by the island councils in

⁸ *Decreto No. 639, Ley de Prohibición de la minería metálica* (2017).

⁹ Submission from Togo.

accordance with the Act on Decentralization of the Administrative Divisions of the Maldives.¹⁰

Question 4: Is the legislative and regulatory framework compliant with the human rights to water and sanitation that guide the macro-planning stage?

51. Government entities carry out the principal role in formulating development agendas and policies. The legal and policy framework that incorporates international human rights obligations function as a guide for the formulation of those agendas in accordance with human rights standards and principles. Policies and legislation that are human rights-based can provide a framework and guidelines to ensure that megaprojects incorporated in national development plans are in line with the human rights to water and sanitation.

52. Legislation and policy on the environment are often considered to be an adequate framework to ensure the protection of human rights in a megaproject cycle. However, while environmental protection ensures a certain level of safeguard, it is not the same and does not provide the same guarantee of the human rights to water and sanitation, in particular since environmental protection does not necessarily take into account the accessibility, affordability and acceptability of water and sanitation services. While certain pieces of legislation are focused on human health and the environment, other legislation on environmental protection of water resources is focused mainly on the protection of ecosystems, the sustainability of the water body, the lack of water pollution or the viability of species living in or depending on the water body. This protection does not usually adequately address the way in which the water supply would fulfil the basic needs of communities that use it for drinking or domestic purposes.

Question 5: Has a comparative study examining different alternative options to megaprojects been carried out at the macro-planning stage?

53. The inclusion of megaprojects in national policies and strategies is often taken for granted as the natural way for development to take place. However, this approach ignores different ways of conceptualizing development that have been increasingly put forward by a number of civil society movements and academics.¹¹ States must consider both the advantageous and the adverse effect of megaprojects on human rights. Such a balancing exercise should be based on the principle of necessity, which requires States to reach a decision as to whether the chosen megaproject is the most suitable option for scaling up economic growth and the least intrusive measure, which will not undermine the human rights, in particular the access to water and sanitation services. Where several policy options are available, States parties to the International Covenant on Economic, Social and Cultural Rights must adopt the option that least restricts rights under the Covenant (E/C.12/2007/1, para. 8 (d)). States should examine whether there are alternative options for achieving the same goals. A careful comparative study examining the various technical options and their impacts on affected populations should be carried out before deciding to implement megaprojects.

¹⁰ Submission from the Maldives.

¹¹ Demaria, Federico et al., "What is degrowth? From an activist slogan to a social movement", *Environmental Values*, No. 22, vol. 2 (2013), pp. 191–215.

B. Licensing or approval

54. The licensing or approval of a megaproject is the process whereby public authorities grant permission for its implementation after reviewing its compliance with laws and regulations. A megaproject can be licensed by an external audit process, whereby it is evaluated by actors other than public authorities, or it can be approved by public authorities. In many countries, this process is conducted by bodies with the representation of civil society. Environmental or social impact assessments inform such processes and studies, and the bodies mandated to grant authorizations are key elements for preventing, minimizing and mitigating impacts. Irrespective of the formality of the procedure, licensing, authorization or approval processes for megaprojects are essential measures to guarantee their alignment with the human rights to water and sanitation.

Question 6: Are participatory processes, in particular including the affected population, part of the licence/approval stage?

55. Licences for megaprojects have usually been granted by the time communities become aware of them and start mobilizing or requesting to participate in the licensing process. The affected population should be duly consulted, as a compulsory step, prior to the granting of licensing or approval, and, where that is not the case, the possibility of annulling the authorization after an ex-post consultation should be available. Judicial procedures and grievance or dispute settlement mechanisms, in particular administrative complaints procedures, are key tools for affected populations to contest megaproject licensing, approval and authorization.

Question 7: Is the assessment of human rights to water and sanitation a precondition for granting a licence/approval?

56. States have the obligation, prior to granting authorizing or licensing to the project, to accurately assess the possible impacts that a megaproject may have on the human rights to water and sanitation. Where human rights violations related to water pollution and over-abstraction result from State actions, States may be in breach of their human rights obligation ([A/HRC/27/55](#), para. 20).

57. The decisions of certain licensing or approving mechanisms are based on information contained in impact assessments that have often been carried out with a strong influence from business interests and which do not reflect human rights perspectives. This in part is due to weak and poorly implemented environmental legislation or the absence of legal frameworks setting out obligations for the assessment of megaprojects and their impacts on the human rights to water and sanitation, whose scope is usually different from that of environmental impact assessments. Strengthening the human rights focus of the environmental assessments, as well as the capacity of institutions that evaluate them, is an essential enabling element for this stage.

Question 8: Is the licence periodically reassessed and renewed?

58. Megaprojects are granted approval to proceed with their activities for a specific period of time, and often there are no oversight mechanisms in existence to monitor whether the project still meets the requirements specified at the time the licence or authorization was granted. A licence, even after it is granted, must be reassessed periodically, in particular when substantive modifications are introduced into a

megaproject or when its impacts on the environment and the human rights of affected communities have changed in an unforeseen way.

59. There are several ways to monitor licensed megaprojects. For instance, in 2018 the Tamil Nadu Pollution Control Board (India) rejected the renewal application for the licence to continue operating the Sterlite Copper smelting plant, because the company had failed to comply with environmental laws and the level of lead was between 4 and 55 times higher than the level considered safe for drinking water in villages near the plant (IND 12/2018). In some contexts, there are systematic mechanisms to monitor the megaproject activities after the initial authorization. In Chile, while there is no periodic review of environmental licences, it is required that a new impact assessment be carried out if the project is significantly modified.¹² In the Maldives, the Government has the authority to terminate any project that may have an undesirable impact on the environment and to revoke any operating licences if there is more than one instance of non-compliance.¹³

C. Planning and designing

60. The actual lifecycle of a specific megaproject begins at the planning and designing stage, at which the practical and technical aspects of the project are ascertained. Also known as pre-construction planning, this stage takes into consideration the project specifications and involves the selection of strategies, means, methods and resources for project implementation, as well as identification of the location for the site operation and construction.

Question 9: Has an ex-ante impact assessment, grounded in human rights, including the human rights to water and sanitation, been carried out at the planning stage?

61. Both State and private companies involved in megaprojects are responsible for incorporating and implementing an ex-ante assessment grounded in human rights at the planning stage of the megaproject. Businesses, in fulfilling their human rights due diligence, should assess the actual and potential human rights impacts of their activities, integrate and acting upon the findings, track responses and communicate how the impacts detected are addressed (Guiding Principles on Business and Human Rights, principle 17).

62. The assessment to identify potential impacts arising from megaprojects is frequently incorporated in the early stages of the lifecycle. In most cases, however, such assessments focus on analysing the impacts of megaprojects on the physical and biological environment, neglecting the human rights impacts. Environmental impact assessments take into account the potential impacts that megaprojects have on water resources, and may contribute to ensuring their quality, availability or sustainability. However, drinking-water quality standards or situations where megaprojects affect the access to drinking water and sanitation of affected populations might not be specifically addressed in such assessments. It is essential that environmental impact assessments include the way in which the potential impact of megaprojects on the environment affects the drinking water of affected populations. For example, the Environment Protection and Preservation Act of Maldives requires an environmental impact assessment report containing information on water and the relationship

¹² Submission from Chile.

¹³ Submission from the Maldives.

between the natural resources and the people living in the area to be submitted before implementing any project that may have a potential impact on the environment.¹⁴

Question 10: Are mitigation and preventive measures included at the planning stage?

63. Megaprojects often affect large populations and have a long-lasting impact on their livelihoods. The ongoing impact of megaprojects leads to environmental damage that, by its nature, cannot be remedied, is difficult to mitigate and has the potential to persist for several generations. It follows that, when not duly considered, reparation of the harm caused is time- and resource-consuming and that such harm is sometimes irreparable in the short- or medium-term, entailing a traumatic process for the affected population. States should therefore put an emphasis on preventive measures to avoid or mitigate the consequences for human rights, in particular, the rights to water and sanitation, rather than take the risk of such negative impacts. Contingency plans for disasters caused by megaprojects or disasters due to the collapse of such projects should be addressed at the planning stage.

64. The application of the precautionary principle at the planning stage is an important step, in particular to address impacts with high levels of uncertainty. The guidance in the principle is to avoid the adoption of a megaproject, or the endorsement of some of its features, while definitive scientific evidence about the impacts is incomplete. The impacts to be considered therein include the effects on the quality and quantity of water sources and the related consequences for the availability of water for drinking or other domestic uses, in particular when they involve people in vulnerable situations. The law on environmental protection in Uruguay sets out a precautionary principle enabling the Ministry of Housing, Territorial Planning and Environment to act in the territory to prevent or suspend actions or activities that may affect the environment.¹⁵

Question 11: Have participatory decision-making processes, including the affected population, been set up in the early phases of the planning and designing stage?

65. The affected population must be part of the decision-making from the early phases of the planning and designing stage. The primary stakeholders should be provided with the necessary tools to adequately assess the potential impacts of megaprojects on the human rights to water and sanitation. Sufficient time and resources, transparency of access to information and interactions between the planners of megaprojects and the stakeholders, including civil society, should therefore be ensured for both parties to decide, plan and adopt adequate and efficient options and in particular for accountable actors to protect, promote and fulfil the human rights to water and sanitation. Participation is a human right and States have corresponding obligations to ensure participation ([A/69/213](#)).

Question 12: Are specific measures in place for the communities that will be displaced as a result of the megaproject? Are those measures guided by the human rights framework?

66. Megaprojects often involve the displacement of populations, forcing them to move to new locations, where water services need to be available for drinking,

¹⁴ Ibid.

¹⁵ Submission from Uruguay.

domestic uses, food production, agriculture or livestock breeding, as well as sanitation facilities. Resettled communities often find that new houses and basic services such as water and sanitation that have been promised to them during pre-resettlement are not provided or, if provided, are non-functional. For instance, in Guatemala, after the territory where the Laguna Larga community was settled was declared a natural park, the community was forcibly evicted from its village by the army and the police in June 2017 and then settled in a camp in the state of Campeche, Mexico, with no access to drinking water or sanitation (GTM 5/2017).

67. Accountable actors must include in the planning and design of megaprojects a thorough review of the need for displacement of the population. Where displacement is inevitable, they must develop plans to provide adequate water before and after eviction. All resettlement measures, including provision of water and sanitation, must be consistent with the human rights principles and completed before those affected are moved from their original areas of dwelling (basic principles and guidelines on development-based evictions and displacement, para. 44). Accountable actors must ensure that evicted persons or groups have guarantees that identified relocation sites are provided with housing, services, materials and infrastructure, such as water and sanitation (ibid., paras. 52 and 55).

D. Construction

68. Construction is the stage at which action taken by accountable actors has a direct effect on the population and their access to water and sanitation.

Question 13: Are the human rights obligations and responsibilities of actors clear at the construction stage?

69. The adequate implementation of accountability requires a clear definition of who is accountable, who may hold actors accountable and what actors must be accountable for. A clear understanding of who has human rights obligations and responsibilities at the construction stage is crucial in order to identify who is also accountable for providing explanations and justification and for imposing sanctions and remedial actions for violations and abuses enforced (A/73/162, para. 90). In particular at the construction stage, private sector participation is complex, as megaprojects involve a range of technical expertise and a supply chain that includes different contractors and subcontractors in addition to the primary business entity that is responsible for the construction. Irrespective of the status in the supply chain, private businesses involved in megaprojects have human rights responsibilities to respect human rights and to address the adverse human rights impacts involved (Guiding Principles on Business and Human Rights, principle 11).

Question 14: Are measures in place to address social conflicts?

70. During the construction phase, social conflicts may occur as affected communities see their drinking water, food, living environments or land ownership threatened. In such conflicts, as illustrated in the previous section, human rights defenders and community leaders are often harassed and threatened. Such confrontations frequently take place at the construction stage, when the affected populations become aware that a licence for the megaproject has been granted and realize that they have not been duly consulted or heard. States, businesses and investors have obligations and responsibilities to take concrete measures to de-escalate conflicts, and to address the concerns of human rights defenders,

including the underlying root causes of such conflicts, related to power imbalance, commodification and corruption, inter alia.

E. Short-term operation

71. The operation stage begins when the megaproject infrastructure enters into use to fulfil its purpose. Conflicts at the construction phase may be exacerbated and others may emerge if the operation deviates from its plan or agreed terms and conditions, or if unpredicted consequences emerge.

Question 15: Are the human rights obligations and responsibilities of actors clear at the short-term operation stage?

72. Clarification as to the accountable actors involved at the short-term operation stage is essential for a transparent accountability process, in addition to clarification as to those involved at the construction stage, since the actors at the two stages may not necessarily be the same.

Question 16: Has an assessment of the human rights impacts, in particular on water and sanitation, been carried out at the short-term operation stage?

73. In the short-term operation, negative impacts and missteps in planning and designing of megaprojects may materialize. Contamination, for example, may increase progressively as the megaproject operates. In this period, some types of megaprojects, such as mining or industrial projects, may start releasing wastes generated by their activities into water bodies and contaminate them. Affected populations must be able to file complaints and report such new impacts on their rights to water and sanitation. They should be able to withdraw their consent or request a review of the licence granted to the projects on the basis of the change of situation. An example of how a State addresses unpredictable changes can be found in El Salvador, where the Government grants a permit for operations whereby compliance with obligatory measures must be reported annually to the relevant ministry throughout the operation of megaprojects.¹⁶

F. Long-term operation

74. The long-term operation of megaprojects needs to be carefully considered, as the biosocioeconomic environment is dynamic, the deterioration of the infrastructure may occur and the prolonged exploitation of resources may exacerbate or introduce new and unforeseen impacts. A combination of such factors may increase the risk of negative impacts on the human rights to water and sanitation of affected populations.

Question 17: Are the human rights obligations and responsibilities of actors clear at the long-term operation stage?

75. In certain projects, the long-term operator may be different from the entity that constructed and operated the project in the short term. It may also be that the changes in the actors involved may not be apparent and that the roles and responsibility of the accountable actors at this stage should therefore be made clear to the affected population.

¹⁶ Submission from El Salvador.

Question 18: Has an assessment of the human rights impacts, in particular on water and sanitation, been carried out at the long-term operation stage?

76. The potential impacts and risks of megaprojects at the long-term operation stage must be identified and safeguards put in place, in order to protect the human rights to water and sanitation. The complexity and lengthy lifecycle of megaprojects requires a response to the long-term impact and to contemplate impacts that will persist for several generations. The active involvement of affected communities in monitoring the security, performance and impacts of the megaproject is key.

Question 19: Is information adequately provided to the affected people at the long-term operation stage?

77. Answerability is the requirement for actors to provide explanations and reasoned justification for their actions, inaction and decisions to the people affected by them, as well as the public at large (A/73/162). However, in many cases, affected populations have not been duly informed or consulted in the preparation and implementation phases of megaprojects or in reparation processes to redress the harm caused by a megaproject. For instance, in 2014, Buenavista del Cobre, a mining company in the Mexico Group, spilled 40,000 cubic metres of acidified leachates of copper sulphate from a dam into several streams that flow into the Sonora River and contaminated around 250 km of the river with heavy metal concentrations that can be lethal for human consumption. In that case, communities were not informed of the harm caused by the spill, and the lack of access to information prevented them from monitoring the health effects and from claiming adequate compensation (MEX 10/2016).

G. Decommissioning and disaster management

78. The final stage of the lifecycle involves processes including decommissioning, or the closure of the megaproject, according to an established formal procedure that includes both administrative and technical processes. In the event of disasters, the megaproject may also come to the end of its cycle if its physical structures are destroyed either partially or as a whole. Such disasters may be man-made, such as those provoked by technological causes, or arise from natural causes, such as floods, earthquakes and tsunamis. Disasters are commonly considered to be man-made, since they are provoked either by technological activities or natural causes that could be prevented by the megaproject management.

Question 20: Is the decommissioning stage part of the project planning?

79. The lack of regulation requiring megaprojects to include a decommissioning stage as part of a mandatory planning process is a reason for inadequate procedures, or a lack of appropriate procedures, at the end of the cycle. However, even where such a binding requirement exists, decommissioning is not always implemented, as actors find it more beneficial and in their interest not to adhere to the requirement of decommissions and to pay fines for non-compliance or even to fail to pay fines through corrupt practices. Often, the cost associated with decommissioning is higher than the fines and sanctions imposed, which are at times compensated for by insurances protecting the investment of the actors involved. There is therefore a need for stronger enforcement mechanisms and proportional sanctions for non-compliance.

80. A way to prevent and mitigate the impact arising from non-compliance with decommissioning is to establish plans at the planning stage for the closure of the operation and the de-installation of physical infrastructure. Such decommissioning processes identified at the planning stage will ensure that resources will be allocated to comply with the plan. Chile has enacted a law on mining decommissioning, under which a warranty fund is requested from mining companies to guarantee that decommissioning activities will be fully and conveniently conducted. Mining companies are entitled to request a proportional reduction in the guarantee fund through certificates issued after the partial or the total decommissioning of a mining project.¹⁷ Although this law is not retroactive and does not apply to the more than 500 mines currently abandoned in the country, such due inclusion of decommissioning strategies and resources in legislation reinforces the accountability framework by facilitating complaints and redress procedures for negative impacts due to the lack of or inadequate decommissioning of megaprojects.

Question 21: Has an assessment of human rights impacts, in particular on water and sanitation, been carried out at the decommissioning stage?

81. When a megaproject fulfils its objectives but does not go through a decommissioning stage or when it is not duly decommissioned, various impacts arise as a result. For megaprojects involving hazardous substances, the impacts may arise from collapses of abandoned dumpsites or heavy metals exposure, which may translate into changes in groundwater regime and contamination of groundwater, surface water, soil and the atmosphere.¹⁸

82. The impact arising from the collapse of megaprojects can have devastating effects on the access to water and sanitation. The consecutive burst of mining tailing dams in the state of Minas Gerais in Brazil in 2015 and 2019 clearly shows those impacts (BRA 10/2015 and BRA 11/2018). In the first disaster, the burst resulted in a primary effect whereby the spill, composed of iron ore waste, reached the Doce River, the main water source for hundreds of thousands of people, rendering the water unsafe. For example, the Krenak indigenous peoples, comprising around 126 families living along the Doce River and 300 kilometres away from the tailing dam, have lost their only source of water. The second spill from the collapse of the Vale dam in Belo Horizonte metropolitan region, the same type of tailing dam, contaminated water from the Feijão Stream and the Paraopeba River downstream, in the São Francisco basin, one of the main basins in Brazil and the only source of water in part of the semiarid region of the country. The non-governmental organization SOS Mata Atlântica monitored water quality along the Paraopeba River across towns and cities, indigenous communities and human settlements of all kinds and considered the river to be extremely degraded.

83. The city of Samarinda in East Kalimantan province in Indonesia is particularly affected by mining activities that were not decommissioned (IDN 1/2019). The proximity of mining activities and non-decommissioned mining to residential areas threatened water sources with being affected by acid mining drainage and acid mine wastes, containing iron, manganese, copper, nickel and aluminium. In February 2016, independent measurements showed that water in a mining pit in Penajam Pasir Utara had a pH of around 3.8, which is considered dangerous to health. This is particularly concerning as some local residents often have no other options than to use the water

¹⁷ *Ley 20551 que regula el cierre de faenas e instalaciones mineras* (2012).

¹⁸ United Nations Environment Programme and the Chilean Copper Commission, "Abandoned Mines problems, issues and policy challenges for decision makers", summary report (Santiago, 18 June 2001), p. 16.

contaminated with heavy metals and low acidity from the mine pit, for washing or bathing.

84. The human rights impact assessment on water and sanitation includes not only the negative impacts that the removal of infrastructure and the remnants of the operation may have on the quality of water but also the way in which certain parts of the infrastructure can be used to enhance water access for the population living in the vicinity. For instance, during an official visit, the Special Rapporteur heard from the Orang Asli in Malaysia that they used the leftover materials from logging projects to build their own gravity-fed water system, feeding it from sources in the high mountains to their villages. A decommission plan can also include not only removal of infrastructure but a way to hand over part of the facilities to the local communities, in accordance with a needs assessment that involves the participation of the communities.

Question 22: Are preventive measures and compensation, redress and reparation procedures in place in the event of a disaster that affects the enjoyment of the human rights to water and sanitation?

85. Preventive and non-repetition measures are essential to prevent recurrence of disasters and States must assess possible risks and damages that may occur in the event of disasters. Preventive measures include measures to avoid or reduce the likelihood of adverse impacts. States are obliged to have plans in place to respond to potential emergency situations. Even during an emergency, immediate obligations of access to the minimum essential level of water and sanitation on a non-discriminatory basis apply (A/HRC/39/55, para. 14). Compensation and redress, especially for disaster situations, need to be provided in an appropriate and timely manner, with close consultation with affected communities. A clear and transparent explanation of the reasons why a disaster occurred is the first step to achieving appropriate redress and remedy for harm caused to the affected communities.

V. Conclusion

86. Megaprojects are double-edged: they may contribute towards the enhancement of people's livelihoods but may also impede the enjoyment of the human rights to water and sanitation. Megaprojects may potentially lead to various negative impacts on the enjoyment of the human right to safe drinking water in particular and, consequently, to the human right to sanitation. The potential negative impacts include reduction in availability or in accessibility to water services or water sources, due to over-exploitation, blockage, deviation or quality deterioration. The impact on availability, accessibility and quality of water in turn can affect other aspects of the human rights to water and sanitation, such as affordability, acceptability, privacy and dignity, and other rights, such as the rights to health, housing and education. These also affect other interlinked rights arising from social conflict, which are aggravated by megaprojects and power imbalances between the proponents of megaprojects and those that are negatively affected. Given the wide range of negative impacts that megaprojects have on the human rights to water and sanitation and other interlinked rights, it is necessary to assess the feasibility and necessity of those projects vis-à-vis the human rights framework. In order to prevent and mitigate risks arising from megaprojects and to ensure that human rights are complied with at every stage of their lifecycle, the Special Rapporteur recommends that accountable actors use the list of questions provided in the report as guidelines for the implementation of their human rights obligations and responsibilities.