

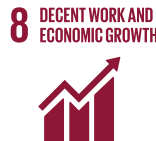
# Hydro and the UN Sustainable development goals

The UN Sustainable development goals (SDGs) embrace a universal approach to the sustainable development agenda. They explicitly call on business to use creativity and innovation to address development challenges and recognize the need for governments to encourage sustainability reporting. Hydro has an impact on all of the 17 development goals, but some more than others. Of the 17, Hydro has chosen eight goals that are the most important to us, that will be highlighted throughout the report.

## IMPROVING OUR FOOTPRINT



## MAKING A POSITIVE DIFFERENCE



## DRIVING INNOVATION



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*Hydro and the UN Sustainable Development Goals*

Goal	Definition	Hydro operational impact	Hydro Contribution	Hydro Policy or position	Learn more (Refers to Hydro's Annual Report 2017)
Sustainable Development Goal 1	End poverty in all its forms everywhere		A prerequisite for ending poverty is sustainable economic development. Hydro's main contribution is through employment and wages, taxes paid, goods and services bought and investment projects. In addition, our social programs in Brazil and other places in the world aim at improving education and community development which in turn are contributions to reduce poverty.	<a href="#">The Hydro Way - Hydro's mission</a>  <a href="#">Hydro's social responsibility</a>	Notes: p. V33 S9 - Community investments, charitable donations and sponsorships  p. V23, S.1.1 - Total employees by region, gender and age as well as payroll  p. V32, S7 - Current income tax
Sustainable Development Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture		A prerequisite for ending poverty and hunger is sustainable economic development. Hydro's main contribution is through employment and wages, taxes paid, goods and services bought and investment projects. In addition, our social programs in Brazil and the rest of the world aim at improving education and community development which in turn are contributions to reduce poverty.	<a href="#">The Hydro Way - Hydro's mission</a>  <a href="#">Hydro's social responsibility</a>	Notes: p. V33, S9 - Community investments, charitable donations and sponsorships  p. V23, S.1.1 - Total employees by region, gender and age as well as payroll  p. V32, S7 - Current income tax
Sustainable Development Goal 3	Ensure healthy lives and promote well-being for all at all ages	Hydro's operational activities entails risk for work hazards and human exposure to emissions, waste and transportation.	Hydro's ambition is to avoid all accidents, in particular serious ones. Accidents and ill-health cause human suffering and inefficient organizations. We work continuously to avoid damage to health, property and loss of production in all our activities. When relevant, this even includes the communities we are part of.	<a href="#">Hydro's social responsibility</a>  <a href="#">Health, Security, Safety and Environment Policy</a>	Pages: p. 100-101 - Health and safety  Notes: p. V28, S5 - Health and safety
Sustainable Development Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all		We cooperate with the educational sector at our main sites of operations with apprenticeship programs. In Brazil, and other countries, we also contribute to enhancing primary education through cooperation with local schools and education authorities.  Hydro targets the whole specter from basic education to technical training and university level degrees relevant to Hydro. Going forward, Hydro will promote teacher training, infrastructure and other means to secure quality education.  Hydro is an employer of skilled workers and professionals at all levels. Hydro's common process for people performance and development, My Way, includes appraisal dialogue, individual development plan and follow-up, as well as talent planning and succession management.	<a href="#">Hydro's people policy</a>  <a href="#">Hydro's social responsibility</a>	Pages: p. 100-101 - Health and safety  Notes: p. V28, S5 - Health and safety

Goal	Definition	Hydro operational impact	Hydro Contribution	Hydro Policy or position	Learn more (Refers to Hydro's Annual Report 2017)
Sustainable Development Goal 5	Achieve gender equality and empower all women and girls	The aluminium industry is male dominated, especially at the operator level. Only 17 percent of Hydro's employees were women in 2017.	<p>The share of women in leadership positions is steadily increasing. We are also targeting recruiting more women at all levels in the organization from apprentices to top management. 21 percent of the top 200 leaders were women and 40 percent of Hydro's Corporate Management Board.</p> <p>All business areas have roadmaps to increase diversity in the organization, including gender, age, nationality and competence. Gender equality continues to be a global focus area for Hydro.</p>	<a href="#">Hydro's people policy</a>	<p>Pages: 93 - Responsible sourcing</p> <p>Notes: p. V22, S1 - Employees</p> <p>p. V27, S3.1 - Women and non-Norwegians in top management</p>
Sustainable Development Goal 6	Ensure availability and sustainable management of water and sanitation for all	<p>Hydro uses and discharges water at all stages of the aluminium value chain. Key stages are mining and alumina refining (Brazil) and primary aluminium production.</p> <p>Most of the water used by Hydro in the production of aluminium (with the exception of water lost by evaporation) is returned to the external environment. The quality of water discharge generally comply with local or site specific permits before discharge to local water recipients.</p> <p>The mapping of Hydro's sites using the WBCSD global water tool in 2017 showed that 0.4 million m3 of our overall freshwater input came from water stressed areas, with regard to annual renewable water supply (according to the definition used by WBCSD). This represents 0.5 percent of Hydro's overall freshwater input.</p>	<p>Prior to building new sites or expanding existing sites, Hydro performs an Environmental Impact Assessment to determine water availability.</p> <p>Where possible, Hydro uses sea water as opposed to freshwater. Freshwater is reused at the bauxite mine and at the alumina refinery.</p> <p>The water used in hydropower production is strictly managed in line with established water management and biodiversity plans.</p>	<a href="#">Health, Security, Safety and Environment Policy</a>	<p>Pages: p. 31 - First and second paragraph</p> <p>p. 86 - Water</p> <p>Notes: p. V10, E2.1 - Other emissions</p> <p>p. V10, E2.2 - Spillages</p> <p>p. V13-14, E4.2 - Water</p>
Sustainable Development Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all	Hydro is a large energy consumer.	<p>Hydro is one of Norway's largest producers of hydroelectric power. 70 percent of the electricity used for Hydro's primary aluminium production comes from renewable sources.</p> <p>Aluminium is an important component in facilities for producing solar and wind power. Electric power cables are increasingly made from aluminium.</p>	<a href="#">Hydro's climate strategy</a>	<p>Pages: p. 82-83 - Using viable energy sources, Reducing energy consumption and emission in production</p> <p>Notes: p. V12, E3, Energy</p>

Goal	Definition	Hydro operational impact	Hydro Contribution	Hydro Policy or position	Learn more (Refers to Hydro's Annual Report 2017)
Sustainable Development Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	While the risk of breaching workers' rights is more limited within Hydro, we realize that the risk can be higher in parts of our supply chain.	<p>Workers' rights within Hydro shall be secured through Hydro's global directives and local legislation as well as through cooperation with unions and other employee representatives. In the supply chain, we work in addition to secure responsible sourcing and procurement.</p> <p>Throughout our activities, we contribute to economic activities and growth directly through our operations and indirectly by creating value for our suppliers, customers and the communities we are part of. In most business areas, there is a forum for dialogue between the management and union representatives. Our ambition is to have this approach in place in all business areas within the end of 2018. Extruded Solutions will become part of Hydro's European Works Council. Hydro's Global Framework Agreement was last updated in 2016.</p>	<p><a href="#">Hydro's people policy</a></p> <p><a href="#">Health, Security, Safety and Environment Policy</a></p> <p><a href="#">Hydro's social responsibility</a></p> <p><a href="#">Hydro's Supplier Code of Conduct</a></p>	<p>Pages: p. A27-30 - UK Modern Slavery Act transparency statement</p> <p>p. 89-97 - Integrity and human rights</p> <p>Notes: p. V22, S1, Employees</p> <p>p. V26, S2, Remuneration</p>
Sustainable Development Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	All economic activity has the potential to impact its surroundings, in good ways and bad ways. Hydro recognizes that corporations too, have a responsibility to minimize the negative impacts and maximize the positive impacts of its company, of its industry – and for our planet.	<p>We believe that the key to Hydro's 112-year-long stretch of industrial progress is the combination of production and innovation, where research and development have gone hand-in-hand with full-scale production.</p> <p>Hydro's efforts and investments over the last years reveal a clear link between our commercial interests and its positive effect on climate and sustainability throughout our value chain:</p> <ul style="list-style-type: none"> <li>• Karmøy technology pilot, to verify the world's most energy and climate efficient primary aluminium production</li> <li>• Automotive Line 3, light-weighting cars</li> <li>• Extruded Solutions delivers use-phase benefits through smart aluminium solutions, i.e. delivering component for London Electrical Vehicle Company's all new zero-emissions-capable black taxi cab.</li> </ul> <p>The Sustainable Barcarena Initiative will provide capacity building, establish a public platform for data monitoring and evaluation, develop social and environmental projects.</p> <p>Also, Hydro has a medium-term target to establish an infrastructure project that aims at having significant impact on the social development of the Barcarena municipality in Brazil.</p>	<p><a href="#">Hydro's social responsibility</a></p> <p><a href="#">The Hydro Integrity Program Handbook</a></p> <p><a href="#">Hydro's Human Rights Policy</a></p> <p><a href="#">Hydro's Supplier Code of Conduct</a></p> <p><a href="#">Sustainable Barcarena Initiative</a></p>	<p>Pages: p. 102-103 - Innovation and design thinking</p> <p>p. 43-44 - Technology and innovation (B&amp;A)</p> <p>p. 47 - Top world primary aluminium producers in 2016</p> <p>p. 52 - Technology and innovation (PM)</p> <p>p. 56-57 - Technology and innovation (MM)</p> <p>p. 61-62 - Technology and innovation (RP)</p> <p>p. 66-67 - Technology and innovation (ES)</p> <p>Notes: p. V33, S8, Research &amp; Development (R&amp;D)</p>

Goal	Definition	Hydro operational impact	Hydro Contribution	Hydro Policy or position	Learn more (Refers to Hydro's Annual Report 2017)
Sustainable Development Goal 10	Reduce inequality within and among countries		<p>Hydro contributes to the socioeconomic development of communities where we operate, mainly in Brazil, USA, Germany and Norway. We also contribute to significant economic activities through our joint ventures and products by creating value for our customers and the communities they are part of.</p> <p>In addition, our more than 30,000 suppliers globally contribute to their communities.</p> <p>Hydro believes that a principle for SDG10 is to promote ethical business practices.</p>	<p><a href="#">The Hydro Way - Hydro's mission</a></p> <p><a href="#">Hydro's social responsibility</a></p>	<p>Pages: p. A6-A20 - Country by country report</p> <p>Notes: p. V23, S1.1, S1.2 Total employees by region, gender and age as well as payroll p. V32, S7, Current income tax p. V33, S9, Community investments, charitable donations and sponsorships</p>
Sustainable Development Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable	All economic activity has the potential to impact its surroundings, in good ways and bad ways. Hydro recognizes that corporations too, have a responsibility to minimize the negative impacts and maximize the positive impacts of its company, of its industry – and for our planet.	<p>Aluminium is an important input into modern city communication and construction, including in energy-efficient buildings and even buildings that produce more energy than they consume.</p> <p>Through its social investments in Brazil, and other countries, Hydro supports important areas related to among other education. In 2017, a significant number of students in Pará, Brazil, were participating in programs aimed at improving reading and writing skills, improving the learning environment in the schools or broader educational programs.</p> <p>The Sustainable Barcarena Initiative will provide capacity building, establish a public platform for data monitoring and evaluation, develop social and environmental projects.</p> <p>Hydro has a target to establish a project with positive impact on social development in the Barcarena Municipality in Brazil. By the end of 2017, the project was ready for design and installation, and our target for 2018 is to have the waste facility in operation.</p>	<p><a href="#">The Hydro Way - Hydro's mission</a></p> <p><a href="#">Hydro's social responsibility Sustainable Barcarena Initiative</a></p>	<p>Pages: p. 89-97 - Integrity, human rights and community impact</p>

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Goal	Definition	Hydro operational impact	Hydro Contribution	Hydro Policy or position	Learn more (Refers to Hydro's Annual Report 2017)
Sustainable Development Goal 12	Ensure sustainable consumption and production patterns	All economic activity has the potential to impact its surroundings, in good ways and bad ways. Hydro recognizes that corporations too, have a responsibility to minimize the negative impacts and maximize the positive impacts of its company, of its industry – and for our planet. Hydro's products may contribute to increased amounts of waste if not recycled at end of life.	<p>Hydro engages in dialogue with customers and other stakeholders regarding the environmental impacts of our processes and products. We perform life-cycle assessments (LCAs) for all major product groups to identify improvement potentials. We also assess aspects including energy consumption and recyclability.</p> <p>Hydro is a large remelter and recycler of aluminium, targeting to increase recycling of post-consumer scrap above 250,000 mt by 2020, up from 148,000 mt in 2017.</p> <p>We are a founding member and active participant of the Aluminium Stewardship Initiative, a non-profit multi-stakeholder organization which exist to administer an independent third-party certification for the aluminium value chain so as to provide independent assurance or responsible production, sourcing and stewardship of aluminium.</p> <p>Hydro is engaging in relevant industry associations and through these also contributing to the EU policy development around Circular Economy.</p>	<p><a href="#">The Hydro Way - Hydro's mission</a></p> <p><a href="#">Health, Security, Safety and Environment Policy</a></p> <p><a href="#">Aluminium Stewardship Initiative</a></p>	<p>Pages: p. 79-105, in particular Product stewardship on page 89</p>
Sustainable Development Goal 13	Take urgent action to combat climate change and its impacts	Hydro emits significant amounts of greenhouse gas (GHG) emissions.	<p>Hydro's ambition is to become carbon-neutral from a lifecycle perspective by 2020. Through this holistic approach, Hydro takes a cradle-to-grave responsibility for its metal through the three distinct phases of the aluminium lifecycle:</p> <ul style="list-style-type: none"> <li>• Production phase: Accounting for the total carbon emissions from bauxite mining, alumina refining and indirect emissions from its power mix, to production of primary aluminium in its global network of fully and part-owned smelter portfolio.</li> <li>• Use phase: Based on the climate benefits of aluminium in use, Hydro is supporting customers to develop products that enable CO<sub>2</sub> savings. Benefits include light-weighting within the automotive and transport industries to save emissions, aluminium used in building and construction to enable energy-efficient buildings and packaging to preserve food and drink and avoid waste and reduce cooling needs, but also a wide range of other benefits in other sectors.</li> <li>• Recycling phase: As aluminium can be recycled over and over without quality degradation and through using only 5 percent of the energy necessary to produce primary aluminium, aluminium can be described as an energy bank.</li> </ul> <p>Hydro is on track with its ambition to be carbon neutral in a life-cycle perspective by 2020.</p>	<p><a href="#">The Hydro Way - Hydro's mission</a></p> <p><a href="#">Health, Security, Safety and Environment Policy</a></p> <p><a href="#">Hydro's climate strategy</a></p>	<p>Pages: p. 43 - Environment (B&amp;A)</p> <p>p. 52-53 - Environment (PM)</p> <p>p. 57 - Environment (MM)</p> <p>p. 62 - Environment (RP)</p> <p>p. 67 - Environment (ES)</p> <p>p. 81-84 - Energy and climate change</p> <p>p. 102-104 - Innovation and design thinking</p> <p>Notes: p. V5, E1, Greenhouse gas emissions</p>

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Sustainable Development Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	<p>In Hydro's understanding of the SDG 14 Life below water, we have chosen to include our impact on freshwater as well as seawater. Hydro uses and discharges water at all stages of the aluminium value chain. Key stages are mining and alumina refining (Brazil) and smelting (largely in Norway).</p> <p>Most of the water used by Hydro in the production of aluminium (with the exception of water lost by evaporation) is returned to the external environment. The quality of water discharge generally complies with local or site specific permits before discharge to local water recipients.</p> <p>Under the EU Water Framework Directive, most of the Hydro relevant fjords in Norway have been classified as Moderate. Region wide river basin management plans are being drawn up to address this.</p> <p>Other fjords (e.g. next to Heroya in Norway) have had a build up of historical pollution which requires more tailored plans. Hydro is continuously developing plans in dialogue with experts, local stakeholders and the authorities.</p> <p>Following an overflow of storm water from the bauxite residue (also known as red mud) deposits at Alunorte in 2009, short term impact were registered on a nearby river.</p> <p>A period of unusually heavy rainfall in Barcarena in Brazil in February 2018, led to flooding. There is no indication or evidence that Alunorte has contaminated local communities, nor indication or evidence of any significant or lasting environmental impact to nearby rivers, following the extreme rainfall.</p> <p>The water used in hydropower production affects the watersheds and their biodiversity.</p>	<p>Prior to building new sites or expanding existing sites, Hydro performs an Environmental Impact Assessment to determine the impact on water.</p> <p>Water used in Hydro's operations in Brazil is reused in the operations or treated before discharged to the environment.</p> <p>The water used in hydropower production is strictly managed in line with established water management and biodiversity plans, including launching about 86,000 fish spawns annually in almost 40 lakes and rivers as part of the concession requirements.</p> <p>To prevent new overflows of storm water from the bauxite residue deposits at Alunorte, similar to the incident in 2009, corrective actions were taken. This included strengthening of the drainage system and improving the surveillance of the water treatment facility.</p> <p>After the unusually heavy rainfall in Barcarena in February 2018, Alunorte has implemented short-term improvements of the water management systems and treatment capacity, maintenance systems, as well as emergency preparedness plans and training. An investment of NOK 500 million in the refinery water treatment system, increasing treatment capacity by 50 percent and basin capacity in the water treatment plant by 150 percent. Further, a project to review and consider further strengthening of Alunorte's water treatment system as a proactive response to possible future climate and weather changes has been established.</p> <p>Hydro is constructing new state of the art waste storage facilities for bauxite residue, and completed a new tailings system in 2017. The new technology will allow the storage facilities to have a smaller environmental footprint.</p> <p>We also actively participate in drawing up water management plans for the relevant river basins under the EU Water Framework Directive and in developing tailor made remediation plans for key affected areas.</p>	<p><a href="#">The Hydro Way - Hydro's mission</a></p> <p><a href="#">Health, Security, Safety and Environment Policy</a></p> <p><a href="#">Guidance note on biodiversity</a></p> <p><a href="#">Reviews confirm no indications of contamination from Alunorte on local communities after rainfall</a></p>	<p>Pages: p. 83 - Environment (Energy) p. 85 - Ecosystems and biodiversity p. 86 - Water</p> <p>Notes: p. V13-15, E4.2, Water</p>

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Sustainable Development Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	<p>Hydro's bauxite mine in Brazil is located in what used to be a high biodiversity area. The area was originally deforested for logging and cattle farming many years before the mining operations were established.</p> <p>Hydro uses strip mining. A strip is cleared of vegetation, mined and then rehabilitated.</p> <p>Tailings are stored in engineered storage facilities which are actively managed and monitored. Discharge water is either returned to the mining process or discharged to the river in accordance with permit limits. Once full, all waste storage facilities will be rehabilitated.</p> <p>At our alumina refinery, bauxite residue (also known as red mud) is also stored in engineered storage facilities which are actively managed and monitored. Discharge water is stored in large storage basins and fed to the on-site waste water treatment plant prior to discharge to the river in accordance with permit limits. Once full, all waste storage sites will be rehabilitated.</p>	<p>To increase our knowledge and to secure a science-based approach, the Biodiversity Research Consortium Brazil-Norway (BRC) was established in 2013. BRC consists of the University of Oslo, Norway, and its Brazilian partners Museu Paraense Emilio Goeldi, Federal University of Pará and Federal Rural University of the Amazon in addition to Hydro. The scope of the consortium is to create a research program connected to our mining operations. The aim is to strengthen Hydro's ability to preserve the natural biodiversity of the areas where we mine bauxite.</p> <p>Hydro is constructing new state of the art waste storage facilities for bauxite residue, and completed a new tailings system in 2017. The new technology will allow the storage facilities to have a smaller environmental footprint.</p> <p>Hydro is developing closure and rehabilitation plans for all its tailings and bauxite residue storage facilities.</p>	<p><a href="#">The Hydro Way - Hydro's mission</a></p> <p><a href="#">Health, Security, Safety and Environment Policy</a></p> <p><a href="#">Guidance note on biodiversity</a></p>	<p>Pages: p. 85-86 - Ecosystems and biodiversity</p> <p>p. 43 - Environment (B&amp;A)</p> <p>p. 71 - Environment (Energy)</p> <p>Notes: p. V17, E6, Biodiversity</p>
Sustainable Development Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels		<p>Hydro subscribe to UN when stating that: "It undermines democracy and the rule of law, leads to violations of human rights, distorts markets, erodes the quality of life and allows organized crime, terrorism and other threats to human security to flourish."</p> <p>Through Hydro's engagement in international organizations like Amnesty International, Transparency International, Extractive Industries Transparency Initiative, UN Global Compact, etc. Hydro gives support to and contributes in global and local actions advocating justice, and strong institutions. On a company level, we set high standards in Hydro's Code of Conduct and governance processes, to which business partners we engage with in all markets where we operate, both with regard to corruption and human rights aspects.</p> <p>Strong communities ultimately rests on the strength of institutions. Therefore, we will promote capacity building on good governance and human rights to for instance civil society organizations. The Sustainable Barcarena Initiative will provide capacity building, establish a public platform for data monitoring and evaluation, develop social and environmental projects. The initiative is a separate legal entity, with its own organization, staff and mandate, financed by, but independent to Alunorte.</p>	<p><a href="#">The Hydro Way - Hydro's mission</a></p> <p><a href="#">Code of Conduct</a></p> <p><a href="#">Hydro's social responsibility</a></p> <p><a href="#">The Hydro Integrity Program Handbook</a></p> <p><a href="#">Reviews confirm no indications of contamination from Alunorte on local communities after rainfall</a></p>	<p>Pages: p. 72-76 - Regulation and taxation</p> <p>p. 89-97 - Integrity, human rights and community impact</p> <p>p. A26-A20 - Country by country report</p> <p>p. A27-A30 - UK Modern Slavery Act transparency statement</p> <p>Notes: p. V34, S10, Compliance</p>
Sustainable Development Goal 17	Strengthen the means of implementation and revitalize the global partnership for sustainable development		<p>Hydro is an active member of UN Global Compact, ICMM, WBCSD, Aluminium Stewardship Initiative, IAI and other industry associations.</p> <p>In addition, we have many local partnerships and intersectorial engagements.</p>	<p><a href="#">The Hydro Way - Hydro's mission</a></p> <p><a href="#">Hydro's partnerships</a></p>	<p>Pages: p. 80 - Viability - The Hydro Way</p> <p>p. 95 - Dialogue with affected parties</p>