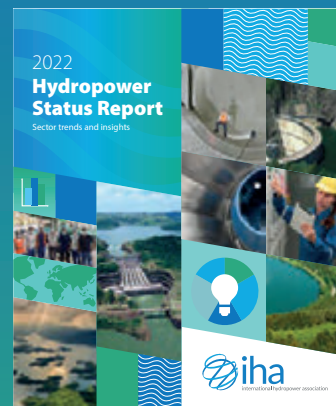


Advancing sustainable hydropower

Annual Report 2022-23





Rowallan hydropower plant, Australia
Credit: HydroTasmania

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The International Hydropower Association is a non-profit membership association. It is the voice for sustainable hydropower and its membership manages and operates around a third (450GW) of global installed hydropower worldwide.

Foreword Shaping the future of hydropower in 2022

As we look back on a year that has seen an intensification of global challenges, climate change remains the biggest threat facing the planet. While progress is generally falling short of what is needed to achieve net zero in a timely way, we are encouraged to see the green shoots of a hydropower renaissance to support the transition to a renewable energy future.

Whilst attribution is always difficult, it is surely no coincidence that a year after the International Forum on Pumped Storage Hydropower, we see big announcements across most of the big economies. China has announced a target of 120 GW of pumped storage capacity by 2030. The Indian Government's Guidelines to Promote Development of Pump Storage Projects set out the financial mechanisms and policies required to achieve 18.8 GW of pumped storage by 2032. The US Inflation Reduction Act includes \$369 billion package of tax credits for the nation's energy sector which will encourage pumped hydro projects.

In a sign of how these policy decisions affect investments, New South Wales in Australia announced in September 2022 a \$44.8 million funding package to unlock the development of five new pumped storage hydropower projects. Just a month later, Queensland Premier Annastacia Palaszczuk announced a plan to investigate the world's largest pumped storage hydropower project, which could provide 5 GW of installed capacity and 24-hour storage to the state grid. The procedure for reporting greenhouse gas emissions attributable to pumped storage under the Greenhouse Gas Protocol is likely to be clarified in favour of the technology following campaigning by IHA and its members.

So, we are moving in the right direction, but the pace needs to be stepped up. The last five years have seen an annual average of 22 GW of new hydropower capacity, which is perilously short of the 45 GW per year that is needed if we are to keep the global temperature rise below 1.5°C and reach net zero emissions by 2050.

Through SHIFT, IHA's initiative to supercharge communications and advocacy efforts, an increasingly confident sector is presenting a united voice and coherent messages across the world – as shown by the #WithHydropower campaign, the inaugural Global Hydropower Day and the strong messages that we took to leaders in Washington, London, New Delhi, COP27, Jakarta, Bogotá, and Rio de Janeiro. Alongside the other renewables, we launched the Planning for

Climate Commission to find ways to streamline and hasten licensing and permitting processes and launched the Global Renewables Alliance to work on other areas of mutual interest.

With the support of our members, in the next twelve months we will seek to build on these platforms to accelerate investment in the sector. Specifically:

- the first projects are becoming certified under the Hydropower Sustainability Standard (HSS).
- in June, we will launch the inaugural World Hydropower Outlook. This report will track the global progress of hydropower development against net-zero pathways and explore the policies that can remove barriers to investment.
- we will build a steady drumbeat of activities including high-level policy missions to the UN Water Conference in March, India in March, Beijing in April and Washington and Jakarta in May, plus continuations of the #WithHydropower campaign and a second Global Hydropower Day.
- finally, the World Hydropower Congress, co-hosted with the Government of Indonesia, will set the stage for sustainable hydropower's 21st century role in the lead up to COP28.

By the end of 2023, we expect be able to point to a significant increase in the pipeline of hydropower development, a more favourable policy environment for sustainable hydropower development, and hydropower recognised at the heart of renewables-based development.

We would like to thank our friends in the hydropower sector and beyond for awakening the 'forgotten giant' of clean energy generation and we look forward to supercharging our momentum with all our friends in October at the World Hydropower Congress.



Roger Gill
IHA President



Eddie Rich
IHA CEO



Five year strategy to 2027

Key advocacy aims

From 2022-2027 IHA will promote the growth of sustainable hydropower by highlighting the following three messages:

- Hydropower is a driver of sustainable growth. It's role as an enabler of other renewables, as well as a direct provider of firm electricity, should be reflected in policymakers' net-zero strategies (policy).
- Investments in hydropower should be incentivised in financial mechanisms and streamlined licencing (finance).
- Hydropower can be delivered sustainably (sustainability).

Resulting in these three outcomes:

- Hydropower capacity at 1,450 GW.
- Significantly more favourable policy environment for sustainable hydropower development.
- At least 20% of all new hydropower capacity in 2027 certified by Hydropower Sustainability Standard.

Our mission and objectives

IHA's mission is to advance sustainable hydropower. IHA's broader objectives are:

- to be the global voice of sustainable hydropower.
- to increase investment in sustainable hydropower by engaging with global policymakers, financial decision makers, and the public with strong, clear and engaging evidence-based advocacy.
- to position sustainable hydropower as a clean, green, modern and affordable solution to climate change and energy security.

These objectives echo the commitments in the San José Declaration on Sustainable Hydropower adopted in September 2021.

Who we are

We are the global voice of sustainable hydropower. Our members are committed to the responsible and sustainable development and operation of hydropower.

Operating in over 120 countries, our members include leading hydropower owners and operators, developers, designers, suppliers and consultants.

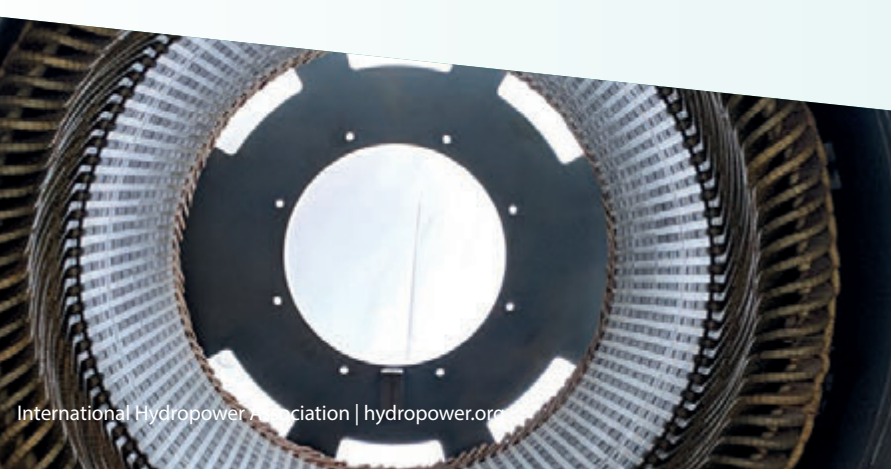
Currently around a third (450 GW) of global installed hydropower capacity is directly managed and operated by our membership.

Our inputs

- 1 Provide evidence and platforms for advocacy
- 2 Mobilise members and stakeholders to promote change at a global level.
- 3 Build a track record of sustainability under the Hydropower Sustainability Standard.

Our outputs

- 1 Global communications and advocacy.
- 2 Advancing pumped storage hydropower.
- 3 Making the most of existing infrastructure.
- 4 A thriving Hydropower Sustainability Standard including an independent HS Alliance.
- 5 Improving investment Climate including financial mechanisms and permitting.



Delivering a values-based membership model

The San José Declaration on Sustainable Hydropower included a bold statement that IHA and its members have taken to heart: "going forward, the only acceptable hydropower is sustainable hydropower".

Alongside recognising World Heritage sites as a no-go for new projects, the Declaration also defined a globally accepted, multi-stakeholder driven definition of sustainability in the context of hydropower: the Hydropower Sustainability Standard.

A framework for growth

With the San José Declaration, the Hydropower Sustainability Standard and the No-go commitment on World Heritage Sites and duty of care for Protected Areas, the sustainable hydropower community set the framework for hydropower growth in the next three decades.

If done sustainably, hydropower will be seen as the "clean, green, modern and affordable solution to climate change" that the San José Declaration says it is.

Leading by example

To be the global voice of sustainable hydropower, IHA and its members need to adhere to the Declaration. Our credibility depends on it.

This is why we moved to a values-based model of membership. Just as not all hydropower should be built, not all companies belong as members of IHA.

Building accountability

Last year we announced that companies would need to be accepted before being welcomed as members. As a result, we have turned down some potential members until they can demonstrate alignment with our values.





Over the last year we have rolled out these same requirements for our existing members. This means that our members now must submit Sustainability Disclosure Forms (SDF) as part of their renewal process. A first round of SDF submissions has also allowed us to gain a better understanding of our members' activities and provided a baseline against which to track our progress over time. [See the Membership year in numbers chart.](#)

Good first steps, but we must do better

Ultimately, whether we are successful in demonstrating that from now on, hydropower is sustainable, will depend on building a track record of certified sustainable projects.

In 2023, we are seeing the first hydropower projects certified under the Hydropower Sustainability Standard. More must follow.

If we are serious about implementing the pathway set out in the San José Declaration on Sustainable Hydropower, all new hydropower projects should ultimately be certified as sustainable. Our members have a responsibility to lead by example.

Looking ahead

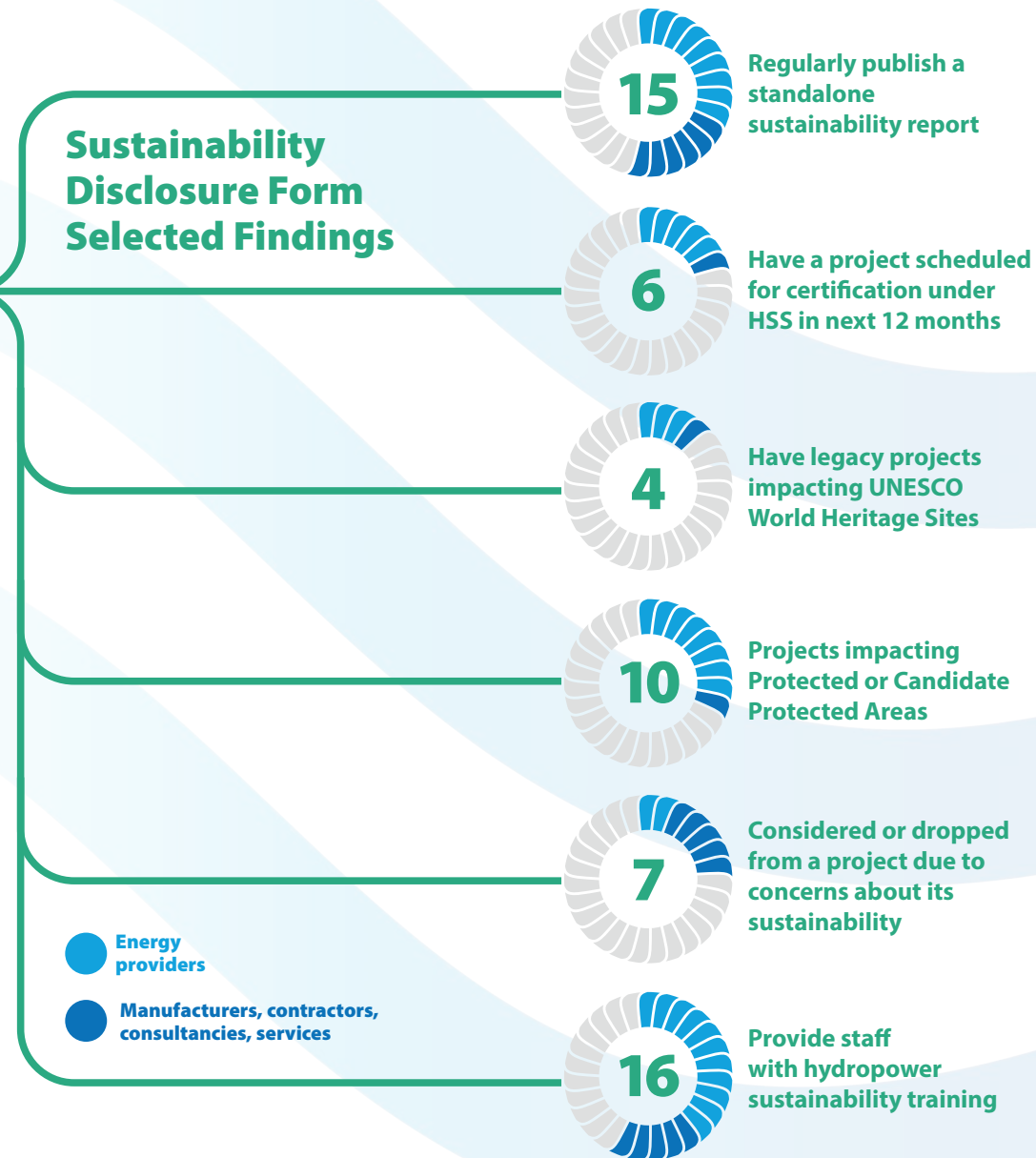
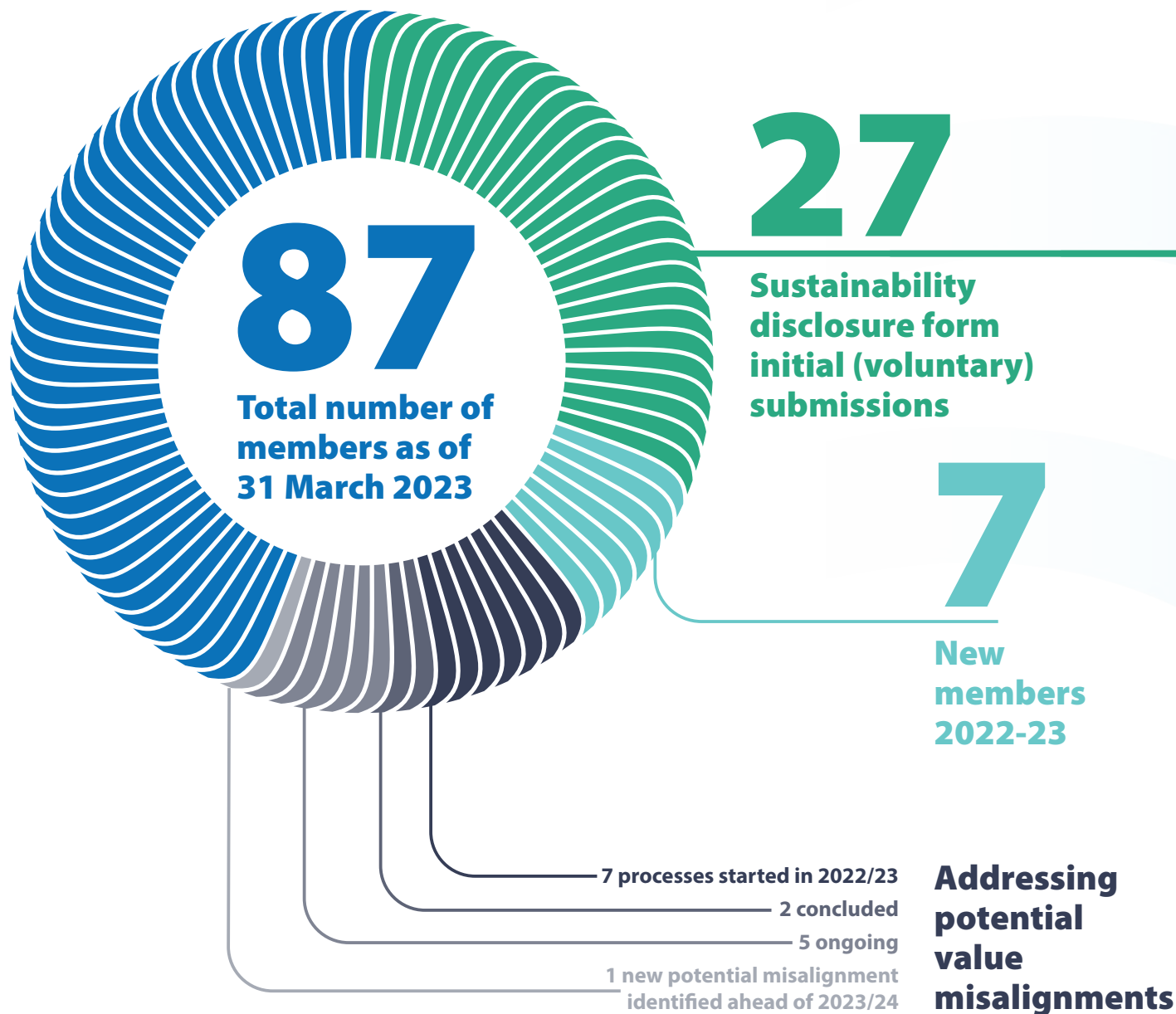
With the adoption of the new IHA Rules and Byelaws in February 2023 and the implementation of requirements for renewals for the 2023/24 membership year, the transition to a values-based membership model that began in 2020 is now complete.

This means that we can now begin with the real work of walking the walk. With elections to the IHA Board taking place this year and the World Hydropower Congress in Indonesia, we are well placed to begin this new stage with our members and partners.

Pablo Valverde
Deputy Chief Executive and
Head of Stakeholder Engagement



The membership year in numbers



Sustainable hydropower: the only hydropower

The Hydropower Sustainability Council is the international voice for sustainable hydropower. IHA expect all our members to apply for certification through the Hydropower Sustainability Standard. We also promote the G-res Tool as a valid means of calculating greenhouse gas emissions from reservoirs, along with advocating for the application of the hydropower sector's Climate Resilience Guide alongside many partners.



Earning international recognition with the Hydropower Sustainability Standard

The Hydropower Sustainability Standard, launched at the 2021 World Hydropower Congress, outlines the minimum requirements to deliver sustainable hydropower. The only global certification of its kind in the renewables sector, the Standard is governed by the Hydropower Sustainability Council, a multi-stakeholder body, and independently assesses projects against 12 sustainability performance criteria.

A new organization will be launched at the 2023 World Hydropower Congress under the name Hydropower Sustainability Alliance. This independent body will be dedicated to certifying sustainability in hydropower, promoting diversity and representation in the sector, and building knowledge and capacity in the hydropower community.

IHA's Sustainability Programme acted as the Council's Secretariat through 2022 to advance its mission to drive positive change in the sector through its three intervention spheres:

IMPACT THROUGH

Policy

- Colombia, Mozambique, and Indonesia cooperated with the Hydropower Sustainability Secretariat to inform national policy on sustainable hydropower.
- RE100 recommended the Standard as a go-to certification system for sustainable hydropower.

IMPACT THROUGH

Promotion

- As of March 2023, there are more than 30 projects in the Standard assessment pipeline.
- 3,312 people subscribed to sustainability news and offers.
- A partnership between the Low Impact Hydropower Institute and the Hydropower Sustainability Council strengthened the message of sustainable and low-impact hydropower projects.

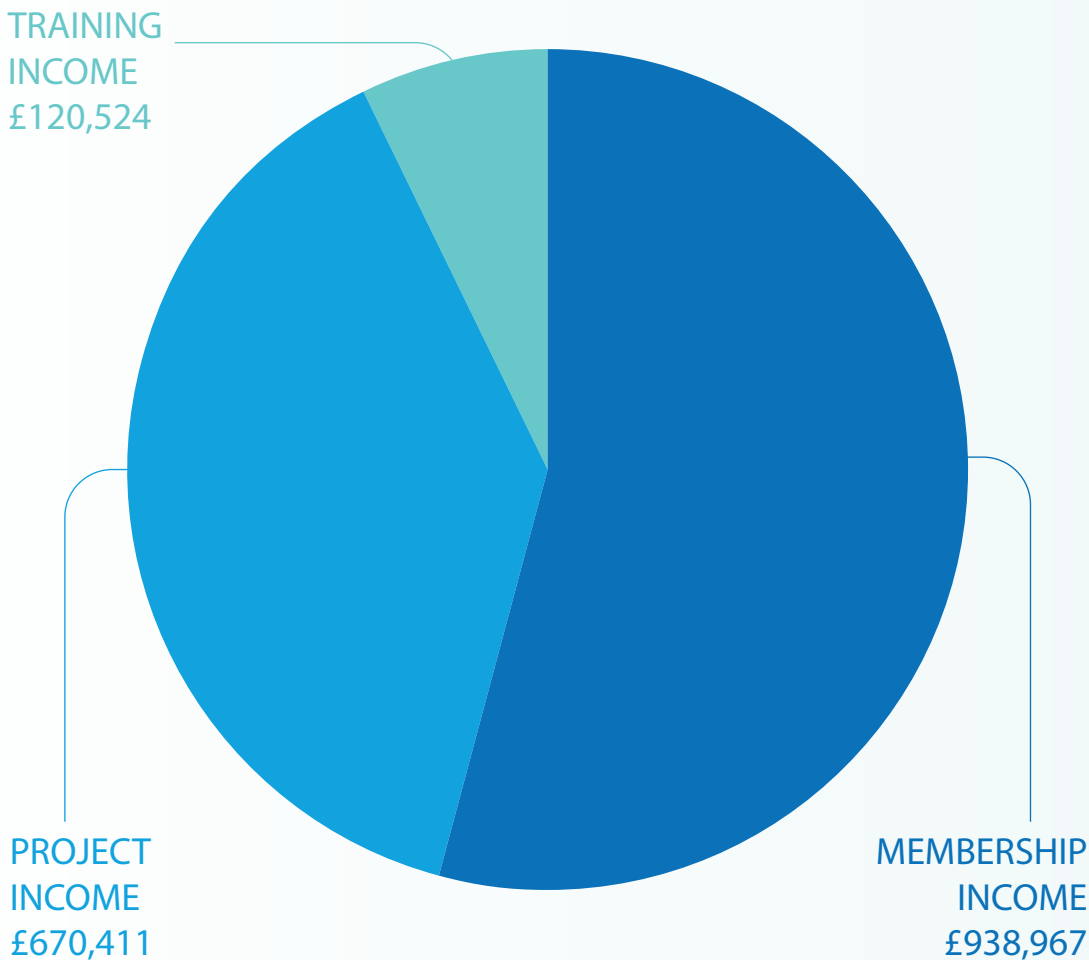
IMPACT THROUGH

Practice

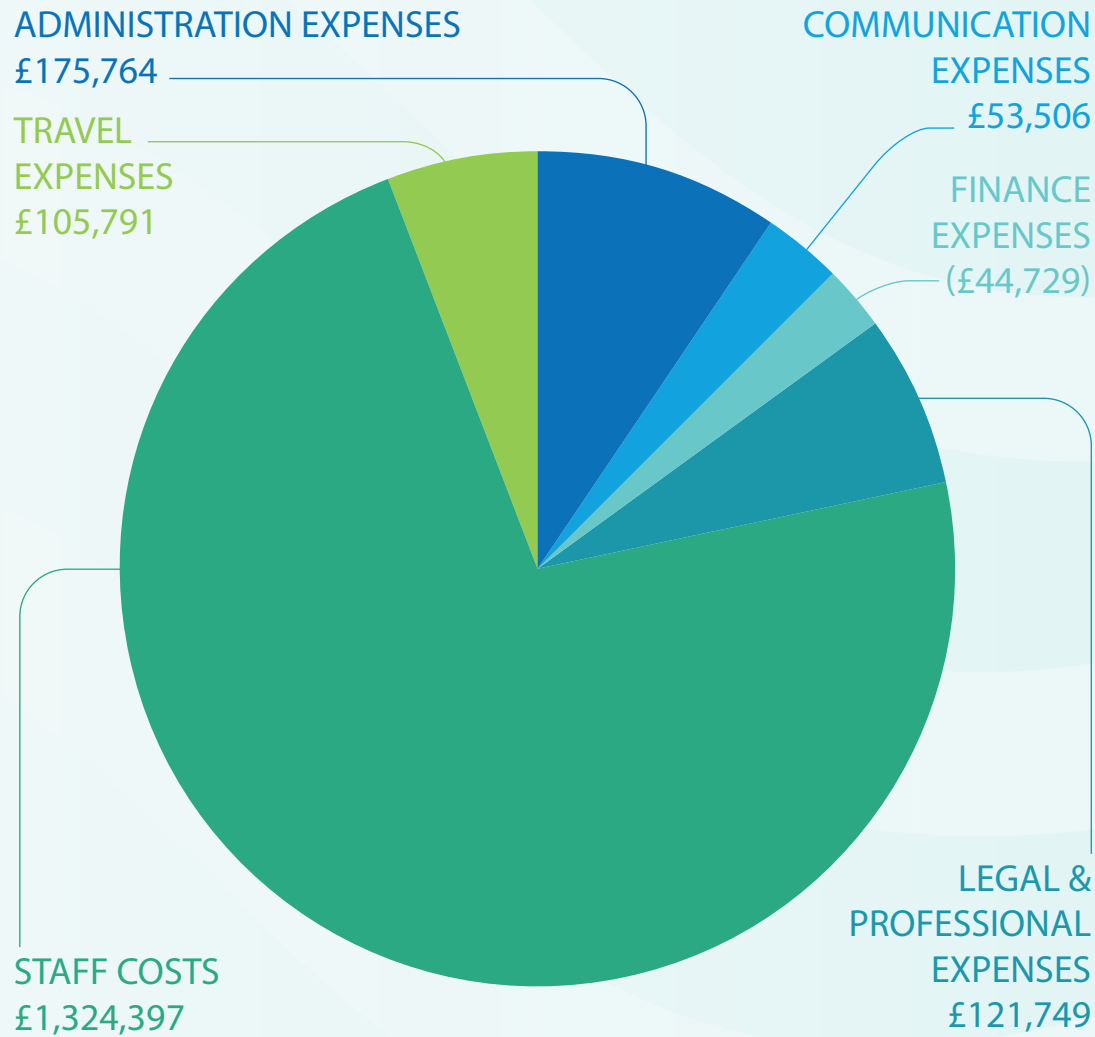
- 407 hydropower and energy professionals were trained by the Secretariat to apply the Standard in their projects.
- ISEAL Alliance recognised the Hydropower Sustainability Standard as the first sustainability mechanism in the hydropower space to become an ISEAL Community Member.

Governance and Finance

Total Net Income £1,729,902



Total Expenditure £1,736,407



IHA is the operating name of International Hydropower Association Limited, a not-for-profit company limited by guarantee incorporated in England (number 8656160).

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