

## *Speech by Alba González Vega & Liam Lachs, EMB Young Ambassadors, at EurOCEAN 2019 conference in Paris, 12 June 2019*

Thanks for the introduction and the opportunity to speak to you all today,

Let's just think about this: in the last fifty years the world's population has doubled, and today there are 36 million more people on the planet, than on January 1<sup>st</sup> of this year. How can our societies and oceans develop sustainably in such a world?

Many of the young marine scientists at this conference have been meeting over the last 3 weeks to discuss our vision for the future of the oceans and the future of marine science. We would like to share with you some of our ideas and insights.

All of us here today share a common concern for the future of our oceans and are aware of the critical role of marine sciences in ensuring a sustainable future. Sadly, many marine ecosystems are on the brink of collapse with multiple stressors giving cumulative and additive impacts from over-exploitation of resources, irresponsible developments, pollution, and climate change. Giving just one example, globally, over 60% of fish stocks are fully fished and almost one third are over-fished. Unfortunately, recovery for some ecosystems is no longer likely. But we can still be optimistic. The decisions made and the actions taken during the coming United Nations Ocean Decade will set the precedent, hopefully a good precedent, for the future of our oceans.

Regular management techniques are no longer fulfilling their protective function. Despite coral reefs being in marine protected areas without fishing pressure, pollution or runoff, they still bleached in recent global-scale mass bleaching events. Now more than ever active management interventions are being considered where conventional management has failed. The United Nations have addressed this with a Decade on Ecosystem Restoration. In the future, we must reconsider the meaning of *pristine* and redefine conservation objectives to match our degrading environment.

Our group of young marine scientists has identified 5 key issues that are fundamental to a sustainable future: open access science; the science policy interface; stakeholder engagement and science communication; education; and gender equality.

The future of marine science we envisage is a global network, where data and research is freely accessible worldwide, allowing us to better identify knowledge gaps, establish shared research priorities, and advance in a common direction. We need a strong focus on ocean observation systems and long-term monitoring so that we can better detect ecosystem shifts and climatic changes.

We don't want our science to be completely detached from the rest of the world, hidden in

laboratories, aboard vessels, or behind computers. Rather, it should be communicated clearly to aid policy makers in creating achievable goals. Science and policy need each other now more than ever. And because our planet is undergoing huge changes, we need adaptable policy frameworks that can incorporate fluctuating and novel environmental circumstances.

Marine science should also engage stakeholders - farmers, fishing communities, local businesses and tourism operators, by performing our research while taking into account stakeholder traditions and needs. Moreover, we must engage the wider public through a reinforcement of science communication. The effects of oceanic pollution have already impacted our collective consciousness. People are concerned about seas covered in litter, animals trapped in plastic, habitats being destroyed... People are protesting, people are moving, desperately asking for change. We must let them know that this change is only possible with the aid of marine science. We must let them know that the research we conduct, often supported with public funds, *is* important to everybody's future.

Education must embrace concepts of sustainability and ocean literacy, starting from elementary levels. Today there is an ever-growing disconnect between urban life and nature. Let's teach children about the oceanic environment, about all the life and beauty it holds, and about how they can help preserve it. Higher education should also engage by offering new specialised programmes, in fields such as science communication, applied marine social sciences, or highly specific up-to-date topics like ocean acidification or coral bleaching.

We heard here yesterday that women represent 38% of marine research, and only 24% of the leadership. In the context of Sustainable Development Goal #5, future marine science should ensure gender equality at EVERY stage of a scientific career, from students to lead scientists and managers, and address the specific causes of inequality in science. We want a world where the effort of women and men is rewarded equally, and where decisions are made by teams with fair representation. Quoting the Nobel Prize winner Malala Yousafzai, "We cannot all succeed if half of us are held back".

Our societies and the entire world rely on healthy oceans. Oceans, as a network of currents, that control and stabilise our climate; as the most diverse and unexplored ecosystems on this planet; as a supply of plentiful food, that must be consumed responsibly and sustainably. Oceans, as a source of sustainable energy; and as the best playground a child could ask for, whether you swim, sail, surf, dive, paddle.... or simply watch. This is the ocean we need for the future we want.

In decades to come, when we look back on these challenging times, let us know that we were the ones who stood up, took action, and did all we could to ensure a sustainable future for ourselves and for generations to come.

Thank you