



Roadmap to SDG14

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[World Federation Coral Reef Conservation](#), [Reef Life Foundation](#), [Ensynox](#),

[Experiential Atelier](#), [Beyond Coral Foundation](#), [Central Texas Ocean Coalition](#),

[Mahonia Na Dari Papua New Guinea](#), [Ocean Research Center AC Cozumel \(TBD 2020 MX\)](#)

The voyage tales of a landlocked retired biochemist scuba diver who loves the Ocean.

This long narrative was created for one purpose, *to inspire students*, I do frequent school “Ocean Career Talks” students keep asking the same question. “How did I get involved working with UN SDG14, and Ocean legends like Sylvia Earl and Fabien Cousteau?” I assure you it was never the retirement plan but I find myself so humbled to have been tapped to help the SDG14 movement. Luck or destiny has landed me in this 3rd career in life. “Giving Back”, is my conquest as a volunteer, assisting the UNESCO SDG14 team with the “Call to Action” for the 2020-2030 Global Decade Ocean Science. This quest evolved into a mission to engage and catalyze a marine corp of like-minded science divers. The Decade of Ocean is a science diver’s bucket list dreamworld opportunity. Artists or scientists this is the ultimate tribute to Darwin. Darwin was only at sea because Captain Fitzroy liked Darwin. who was a good storyteller, who would make for a better long voyage, plus the King’s demand the expedition included a science journalist? UNESCO is seeking SDG14 scientists and artists to be the SDG14 Darwin’s. Our future of that of many species urgently needs passionate dedicated people with or without diving skills for the Decade Ocean project. Everyone can help, a wide diversity of talents will be required for SDG14 projects. We need artists, photographers, filmmakers, grant writers, cultural experts, policymakers, creatives, robotics, engineers, XR-AR all geeks, social media gurus, storytellers, webmasters, animators, accountants, lawyers, educators, drone and ROV pilots, translators, boat captains or perhaps you have needed team products, services, or resources that can be donated or discounted. Donations of restaurant meals, hotel rooms, rental cars, dive boats, dive gear, dive certification classes, or science equipment, everyone can help time, talents, or treasures. We are looking for those individuals who believe in OPEN SOURCE collaboration to solve problems, people who will pledge to live by the bylaws of a blockchain trust. Passionate souls are willing to donate their vacation or retired time, talents, and treasures; eager to do whatever they can for the achievement of SDG14 targets somewhere on the planet. Volunteers won’t be out to sea tagging whale sharks or take a sub to the bottom of the ocean; those are unique marine science skills. However, everyone has an equal stake in the Ocean Health Index. Over the last 4 years, 100s of SDG17 partnership handshakes agreements have been made.

- We agree to focus on youth-centric STEAM and SDG14 certification training programs that lead to fair wage sustainable SDG5 Blue Economy careers.

- Another KEY agreement for SDG14 achievement will be the establishment of the Ocean Research Center of Excellence. We agree to work towards establishing and expanding the Center's purpose to be a "State of the Art" ocean experience center. A facility to expose millions of annual island visitors to the technology and behavior solutions for our SDG problems.
- The Center will utilize the latest and greatest VR 360 visual technologies.
- Our SDG17 team of local volunteers will restore, recycle, reuse, repurpose, rebuild, and rebrand the 1988 hurricane destroyed UNESCO Biosphere lighthouse-castle facility to become the MesoAM Man and BioSphere SDG Center. The LIGHTHOUSE to be the beacon in good and bad times ahead, as we work on the UNESCO Decade of Ocean Science. This is our mission for regional SDG achievement, a regionally shared NGO co-op multi-functional comprehensive SDG Center of Excellence. A fully "Off-Grid" facility powered by best of breed renewable energy technologies, a fully renewable energy facility, a "Zero CO2" facility, including wastewater to drinking water processing. I tend to think BIG, why not an "Off-Grid Island by 2030?"

Recent Ocean Achievements 2020-2017

- Invited to join the UN SDG14 team, Feb. 2017 one 600 planning the June UN SDG14 Ocean Conference. Peter Thomson, President of the UN, made a "Call for Action" plea to Ocean stakeholders across the planet to apply to be one of 1500- on his volunteer workforce to assist the UN in the quest to achieve SDG14 by 2030. Little did I expect my 1986 Great Barrier Reef days doing shark observations with a Hi-8 video camera would ever lead me on this amazing ocean wave. As you read, I hope you will recognize one repeating theme. This is my "GIVING BACK" sharing my time, talents, and treasures, as the result of a few successful business ventures, to inspire youth and scientists to join forces.
- April 2017 4th year at EarthX for Mission Blue tabling, Presented SDG14 Citizen Science Diver (SDG14SD) initiative concept to Sylvia Earle, EarthX. 1,000 experienced Citizen Science divers to survey 10,000 dive sites for the UNESCO Decade of Ocean Science. Humbled with her offer to do anything I need to help me with this proposal.
- July to Sept 2017 Philippines SDG14 science field trip to numerous Marine Protected Areas (MPA), met with two State Governors, Directors of Greenpeace, Oceana, Reef Check, Marine Wildlife Watch, WWF, Shore It Up, RARE, Biri Initiative, Universities Dept of Marine Science, and completed 80 SDG14 dives. 11 days circumnavigation Cebu documenting endangered species. Funded and assisted placing a coral restoration "BiriBud" in N Samar Island. Attended DRT, the largest diving trade show, presented SDG14SD to NGOs, the diving industry with unanimous verbal support.
- Nov 2017 DEMA, the world's largest professional diving tradeshow, which I have attended since 2000. My purpose at DEMA has been seeking support for multiple nonprofit ocean projects. I received unanimous verbal commitments to support my SDG14 science divers initiative. I proudly attribute this humbling amount of support to my proven non-profit track record with DEMA exhibitors for working with best practice Nobel Ocean projects.
- Jan to March 2018 Cozumel MX, concluded multiple SDG14 initiative presentations to local and regional government SDG Departments, the President of Cozumel, NGOs, dive operators, business leaders, and the general public. Held Cozumel's 1st public SDG14 "Ocean Talks" with 10 Ocean scientists. SDG17 team expanded from two NGO groups to twenty members. For countless obvious reasons, Cozumel is the obvious location for the SDG14SD regional pilot

project. Future SDG Plans include frequent public and school Ocean talks, Ocean day marches, SDG14 information facility, Ring of Hope training center supporting regional Coral farm teams.

- March MX, attended the Economist World Ocean Summit, the world's most powerful CEOs, "Financing the Ocean." I was there to support Sylvia Earle, manning our Mission Blue exhibit table. At the summit over 50 SDG14 significant business contacts handshake agreements were pledged in support of SDG14SD when it launches.
- March 10 to 15th Austin, TX, SXSW Interactive seeking Innovative SDG14 Technology solutions. I was a co-founder of SXSW and have constantly looked for technology solutions for Ocean problems. Many great ideas have evolved from the largest gathering of global tech geeks.

2018

- April 15-23rd, EarthX, Mission Blue Booth, 3rd year as the lead Mission Blue Booth coordinator, over 130,000 people attended in the 3 days of this event. Each year more people are seeking the same answer "What can I do for SDG14?" I have emailed countless copies of a list of 100 suggested Actions, better behaviors for a better Planet.
- April 28th June 4th Cozumel MX, Ocean Talks, SDG17 Mesoamerican team grew, President of Cozumel agreed to virtually draw our line in the sand marking this day of remembrance, 500 years ago Spaniards invaded the Yucatan, mission by 2518 the people of Cozumel will return to the seas of Cozumel as when Spain landed. The Captain's logbook entry, "Our men walked on the backs of sea turtles to get to the beach." Plans ending single-use plastics, use of coral safe sunscreens, limits on fertilizers and pesticides, a moratorium on construction near mangroves or reefs, prevent 2nd golf course, cruise ship numbers return to sustainable levels.
- June 5th June 30th assisting the Washington DC team 1st global "Marching for the Ocean" event. I catalyzed several global Ocean groups to host a march.
- August to October, Philippines to support the SDG14SD groups from my 2017 tour of MPAs.
- November DEMA tradeshow I continue seeking SDG14SD support.

2019

- Jan 2019, development planning for the first class of SDG14 SD divers in Cozumel. SDG14SD training for global citizen science divers, local citizen science divers, and high school students as MPA/SDG14SD interns. 10 local dive sites will be surveyed using UNESCO Decade of Science best practices methodologies, plans to modify various Citizen Science Diver MPA interns online courses to be certified SDG14SD courses. By 2023, extend SDG14SD deployment across the Caribbean Ring Of Hope and beyond, to include 1,000 global dive sites, 100 global citizen science divers, 100 local divers in their respective seas, and 1000 MPA interns. SXSW, NSF, Pfizer SDG, NASA summer camps, and many technology contacts
- Cozumel SDG14 Ocean Champions Event City Hall and I held a recognition event for 70+ MX and 70+ Ocean champions presented certificates signed by UN and MX VIPs.
- EarthXOcean, Fabien Cousteau guide 3 days, Inland Ocean Coalition meetings, handshake agreements Ocean science speaker for the Ocean Research Center exchange program.
- City of Austin Solar Renewable Energy Meetups building a sister city to Cozumel relationship
- UT, A&M Sea Grant Judging Ph.D. projects Earthday tabling events, seeking exchange students and professors for the Ocean Research Center
- UT Marine Science Club honorary member, seeking exchange students and professors for the Ocean Research Center.
- May Cozumel day I arrived, Mission Blue Board called asking me to assist three Ocean Science technology companies clear MX customs with their experiment supplies for Coral disease and restoration. ReefLife Foundation, **IntelliReef** coral nanotechnology substrate, Ensynox Enzyme

nanomaterial from prehistoric earthworms, Beyond Coral Foundation, aquariums and aquarium equipment for Tulum, MX coral farms. Now their acting SDG14 Ocean Science board advisor.

- Added many SDG17 local NGOs, CODESUS Student SDG projects, Run for the Bees, 30+ School Ocean Talks, Friday4Future MX protests, Gardner SDG projects, and mentoring several students.
- First meeting with new President of Cozumel to obtain permission, event space, tables, chairs, and police support and promotional help for the 2nd marching for the Ocean event
- March for Ocean #2 twice the numbers of marchers and more importantly added 30 sponsors.
- SCTL D Steve Vollmer Bill Pretch, Ocean Genome Legacy came to work with local Marine Park scientists in the collection of Corals for the process of identifying DNA of coral pathogens.
- Gardner School mentoring skills for video, interviewing, social media, and storytelling with the Friday4Future MX students
- Mentoring FPMC (Federal Parks and Museums of Cozumel) Students of Excellence
- Panel speaker at the Sargazo Gran Caribe in Cancun, attended by the VIPs of the tourist industry from regional coastal communities and Caribbean Islands, about the annual deadly algae, blooms impacts and solutions
- Summer camps Ocean Talks to students out of school for the summer.
- City Hall, Mario Yanez Project planner and I have held multiple SDG14 Ocean Research Center Planning sessions, Mario constantly reassured me the UNESCO Ocean Research Center proposal was the only SDG14 project President Pedro Joaquin wants City Hall to support, they are adding the Center to the City Budget for 2020, Corona 19, of course, has dramatically impacted our plans
- Sept Youth Strike for Climate. One of many speakers who addressed about 10,000 youth to inspire from the steps of Capitol Building in Austin, TX.
- Cozumel SDG14 Labeling EcoFair Town Square exhibiting local SDG14 solutions and projects
- Lighthouse Castle facility donation meetings began for one of the three possible facilities.
- Resume Gardner Fridays4Future MX students video interviews and social media posts
- Graduation speech FPMC Students of Excellence Graduation Ocean Careers
- Boston's NE Univ Ocean Genome Legacy board member meetings in Cozumel
- DEMA presented SDG14 Champion recognition certificates of thanks, SDG14 supporter pledges
 - NAUI Green Diver initiative,
 - Scuba Radio, plus interviews
 - Women's Diver Hall of Fame
 - Lionfish University
 - DAN MX
 - Ocean Education International
 - Dive Systems - NATO Dive gear at cost for SDG14 dives
 - and many many more
- Cozumel's first Coral Disease Summit, Panel Speaker, UNAM, CONAP Marine Park, Ocean Genome, and Univ FL who discovered SCTL D, 3 days meetings, and multiple science dives collection of disease data, and meetings with Cozumel President SDG14 Coral disease action plan and budget. Scientists shared their Ocean Careers to inspire FPMC Students of Excellence.
- MX Residency for Ocean Science work approved, this was a paperwork challenge allowing me to freely come and go doing Ocean Science in MX.
- Mario Yanez City Hall presented the City budget with the inclusion of City support for the Ocean Research Center. Handed a pledge letter from the President which included local, state, and

national contributions plus a percent of the 2020 tourist sanitation fee. C19 has killed tourism in Cozumel, which will delay all ORC plans.

2020

- Nine NGOs SDG14 Board Ocean Science Advisor, find **WEBLINKS at the top of this document**
- January Cozumel Atlantis local student's Ocean reef experiences.
- January UN SDG14 team prep meeting for the 2nd UN Ocean Conference set for June 8. I arrived at NYC to the UN anxious and excited to share Cozumel's pledge letter in my many meetings with the UNESCO Decade team, Explorer's Club meetings, multiple SDG program interviews, and collaboration with SeaSave.Org, Multiple meetings with UNESCO President Vladimir Ryabinin, Julian Barbieri UNESCO Dir. Decade Ocean, Joanna Post UN Climate Change SDG13/14 coordinator, Rise UP team, and dozens more of SDG14 VIPs.
- February Boston NE Univ, fundraising meetings Ocean Genome Legacy tour and pledges matching 800K to SCTL Cozumel project OGL is the home of 35K+ marine animal DNA specimens, meetings with lobstermen, fishermen, seafood inspectors, multiple NGOs, Ocean Alliance inventors of the whale DNA drone "Snot Bot",
- Meeting with PAL NGO doing cleanups, an auditorium of over 200 gave an Ocean Talk to Gloucesters spectacular ESSEX North Shore Tech school, meeting with DNA group at the Gloucester Marine Genomics Institute,
- Inland Ocean Coalition meetings with the City of Austin, Dept of Sustainability continuing to build on a City Hall relationship of many decades working towards a sister city with Cozumel.
- SWSX Interactive event was canceled. I participated in multiple technology company's virtual meetings, added SDG17 contacts, planted seeds for an SXSWSWG summit in Austin someday.
- EarthXOcean canceled participation in multiple SDG webinars and added many SDG17 contacts.
- UN SDG 14 2nd SDG14 Ocean Conference canceled, Virtual Conference announced
- Life became filled with ZOOM Ocean webinars, I easily participated in over 100 Ocean webinar events in 60 days. Countless SDG17 contacts were made. Virtual catching up and reconnecting with global ocean conference colleagues was productive.
 - ***Sidebar note:** one C19 crisis positive result will be improved global connections, the world knows how to Zoom. Residual use of ZOOM meetings will improve open source sharing of best practices. Working from home may become permanent in many jobs, positive CO2 footprint plus peak hour traffic flow impacts. Hopeful addition users will adopt become riders of mass transportation*
- C19 Pandemic all past Ocean Research pledges are considered in limbo until a safe post C19 circular sustainable economy returns to the region
- The ORCF project went from full first-year funding to a reality of ZERO tourists, ZERO tourist fees, ZERO matching donation, obviously, the entire world of philanthropy became correctly focused on the immediate crisis to save lives.
- TheGlobalSummit Moderated One Ocean One Team Panel to inspire volunteers to find an NGO ocean project to help somewhere on the planet, everyone made the mess everyone can help fix
- Burning Man, MiamiBurn creating VR One Ocean One Team World, eventually showcase 1000s NGO projects, video, photos, pdfs, links in a world for the GenZers to get engaged volunteering for SDG14. Best Practices resources for SDG14 projects.
- Indefinite lockdown anticipate 6 to 18 months before safe for global travel to do field science.

Career prior to joining UN SDG14 Ocean Team

Current – 2005 Audio Visual Conservation Awareness

AVCA is my semi-retirement “Give Back” effort for the future of the Ocean. My mission is to apply storyteller, diving, and biochemistry skills along with other Ocean scientists, in an SDG17 virtual team as part of the ONE OCEAN ONE PLANET movement. For decades I have been using interactive computer skills multimedia presentations for noble purposes. 2017 to 2030 I intend to use every drop of energy and resources I have to assist dedicated ocean scientists to obtain the funding and to gain the support and recognition they deserve. A properly informed public that hears “True Science Facts” the overwhelming response is they also want to “Do the Right Thing”.

Current – 2000 UN SDG14 Mission Blue Ocean Ambassador

Helping Mission Blue team at conferences organizing and manning the Mission Blue booth. 2004 I began helping Dr. Sylvia Earle “Her Deepness” 5 years before the Mission Blue (MB) Project TED talk. Please find it online. It was so inspiring. At the event, Sylvia announced her 100 “Hope Spots” the most important Ocean Marine Habitats. The world must protect these Hope Spots in order to feed the world. Hope spots are defined as having an abundance of seafood or the widest diversity of rare, threatened or endemic species. Hope spots are major migration and spawning grounds, with significant historical, cultural, or spiritual values and important economic for local and global communities.

Current – 2015 World Federation Coral Reef Conservation (WFCRC)

This is my boots on the groundwork in the Caribbean and Bismarck Seas. My initial role for WFCRC was to get them inducted under the Mission Blue group. I was the person from WFCRC to attend the first UN SDG14 Ocean Conference. WFCRC's mission is to advance the understanding, use, and conservation of coral reefs and coastal environments. Our team consists of educational partnerships of concerned citizen science divers, multi-disciplined scientists, the conservationists who are connected to the entire eco-science community. WFCRC primary goals are enhancing and empowering local island governments and stakeholders to use the “Blue Economy” to sustainably protect their vital limited marine resources.

Current – 2004 Mahonia Na Dari (Guardians of the Sea) (MND)

As co-leader to West New Britain Papua New Guinea and after three 30 day marine eco-science expeditions I continue to support the creation of several Marine Protected Areas’ (MPA). Mahonia Na Dari is a local and extremely critical eco group right in the heart of the Bismarck Sea. The local mission here is to understand and conserve the “Blue Economy” and natural environments of Papua New Guinea (PNG) for the benefit of present and future generations. I assisted in the PNG booth at DEMA for the last 13 years. In 2010 submitted for Hope Spot, 2020 it became the first PNG HOPE SPOT

Current – 2000 NOAA: Gulf of Mexico Flower Gardens

I work with A&M scientists who support NOAA’s efforts to promote responsible, sustainable ocean uses that ensure the health of our most valued ocean places. The [National Marine Sanctuaries Act](#) provides government support allowing sanctuaries to seek to preserve the extraordinary scenic beauty, biodiversity, historical connections, and economic productivity of our most precious underwater treasures to strengthen our nation now and for future generations.

Current – 2000 Swim for the Reef Aquatic Sports Cozumel, Mexico

I have been helping Swim For The Reef and Aquatic Sports Expeditions with their mission to engage their divers to become active eco participants in the health of the magnificent Cozumel reefs of the western Caribbean Sea. Through active participation with the [Coral Reef Alliance](#), Mexico's National Marine Park education program, and the international science education organization, [Swim For The Reef](#), demonstrates the importance of the "Blue Economy" of the reefs of Cozumel and the northern end of the Mesoamerican barrier reef.

Current – 2000 Spring Lake Meadows Center for Water and Environment, San Marcos, TX

I continue to volunteer my skills as a video journalist and science diver at the Center to assist with aqua science and public awareness of the importance of the 4,300 liters per second collection of 200 freshwater springs and early home of Clovis man. The Center strives to inspire research and leadership to ensure clean, abundant water for the environment and all humanity via Research, Education, Stewardship, and Leadership. 18 miles from my home in 2004 Sylvia placed a webcam in Spring lake to observe endangered critters in the ancient home of Clovis Man, who ruled the land, sustainably.

2007 to 2017 Wounded Warrior Adaptive Scuba program.

One of four individuals first class in 2007 until 2017, 33 classes, 18 dive trips. Assisted 300+ combat wounded soldiers to become certified in scuba diving for therapy. Many of these individuals went on to become adaptive dive instructors. Hopefully, some of them will be joining me on our SDG14SD teams. Countless DEMA groups helped support this program, donations of dive gear and discounts were provided every year. This NGO history paved the way for DEMA support for SDG14SD.

2000-2007 Eels on Wheels Adaptive scuba program

Assisted 100s perhaps 1,000 children and adults with disabilities to experience scuba in a swimming pool. Several went on to become certified adaptive scuba divers. This group held several summer "scuba" camps every year as well as taking groups on organized dive trips. This was the first NGO to seek DEMA donations and support.

1990 – 2005 Founder of AVCA Audio Visual Communication Applications

[2017 rebranded Audio Visual Conservation Awareness]

My second startup company, based in Austin TX. We were the multimedia tech pioneers of Austin. This is where I honed my skills as an interactive storyteller, developing interactive multimedia applications so Fortune 500 company subject matter experts could more effectively convince buyers to purchase their latest and greatest high tech products.

1993 founder SXSW one of three individuals responsible for the genesis of SXSW interactive. SXSW is the undisputed largest gathering of global technology geeks pushing the innovative limits of the latest technologies. One of my joys is the discovery and sharing of best of breed eco-technology with SDG14 NGOs.

1985 to 1980 On-Line Computer retail store,

This was my first startup venture. My biochemist success with Abbott laboratories funded opening a computer store. In 1908 there were less than 300 computer stores excluding Radio Shack, however in 1985, 17,000 US stores. My vision TECH FOR GOOD began, I felt computers would be more than gaming devices. I always viewed this technology as the best potential for mass higher quality education for any topic, not to replace teachers but to augment them to give them a path to help

students who needed one on one help. Thankfully the success of this startup allows me to be self-funded to “GIVE BACK”

1980 – 1972 Abbott Laboratories Diagnostic Division

As a hospital biochemist, on a team of 6 grew which rapidly expanded to a division of 3,000 lab chemists. This opportunity allowed me to lead a team as we expanded to western Europe and the S. Pacific, and exposure to Ocean science. While working in Australia I learned to scuba dive on the Great Barrier Reef, using a Hi 8 video camera to observe sharks in 1986. During a visit in 2000, I observed one of the saddest days of my life. I was not prepared for the shock I witnessed for these wonderful marine habitats and the reef destruction caused by humans. This was my life-changing moment. As scientists, I knew I had to do something. I have been seeking other science divers since then, joining them as we jump up and down proclaiming “We have a real serious global Ocean problem!!!” I have not stopped.

1963-1972 University of New Mexico, School of Medicine Biochemist, Medical Technologist

University and various hospital roles led me to join a fortune 500 Medical company Abbott Laboratories. It was also during this time as an intern for Biology professor I was tasked to investigate the mystery of local farmer’s pond life dying. To think 40 years ago our little project discovered CO₂, pH and O₂ levels added to over-fertilization and pesticides were the root causes of their pond death. How ironic that now our ONE OCEAN suffers this same future unless we reverse current human behaviors that are causing the decline of the Ocean Health Index.

1963 – 1949 the formative years of the MAD SCIENTISTS

I’m the son of an Air Force Master Sergeant. an avid fisherman (my water DNA) and mom my guiding angel a super talented Porcelain Artist (my creative DNA). Dad’s high tech career, even building our first TV (my tech gene) meant my three sisters and I moved 20 times before I graduated from High School. Dad didn’t do family vacations, we went fishing. At five I caught my first shark. When fishing I was always exploring the banks of the river, lake, or pond wandering around observing water critters. My folks taught me one vital life lesson; “You can do anything if you put your mind to it” attitude plus providing a set of encyclopedias, National Geographic subscription, and exposure to Jacques Cousteau, Sylvia Earle, Albert Einstein, Gene Autry, Roy Rogers, Hopalong Cassidy, Superman, and Walt Disney thankfully formed my exploring scientists mindset to “**GIVE BACK for GOOD**” THAT’S ALL FOLKS!!! Even I pinch myself on the roadmap to join the UN SDG14 team.