# Troubled waters

A financial crisis creates opportunity. We know that now. But so does an environmental one – there are fortunes to be made for those who can find a way for us to stop relying on our natural resources for energy, especially on our precious $H_2O$. Not to mention that the credit crunch will seem trivial when we finally face the consequences of the global climate crunch and water becomes as expensive as gold or oil, if not more so.

This resource is slowly becoming dirtier, rarer and warmer, all without us realising it. And when you find out that the human body can survive one month without food, but not even a week without water, it sort of puts things into perspective.

Of course, if the problem were simple it would already be solved, so to get you on the way of at least understanding the challenges (and opportunities) of the water issue, **Peter Sabine** and **Jessica Morris** present you with three watery problems, and the people who are trying to solve them

# *The problem:*

## Our pollution is changing the balance of the sea's eco-system

# *Trying to solve it:*

## Doug Woodring, co-founder of Project Kaisei

Photography by Rico Tsui

The Pacific Ocean is now a sea of discontent, with a growing abyss of plastic laying in its waters just north of Hawaii.

Beyond territorial jurisdiction, in an area not frequently traversed, the mass moves seasonally, and has no rigid boundaries. No one knows exactly how big the area is, or what the effects of it are, but Doug Woodring, Hong Kong-based co-founder of Project Kaisei, is on a mission to find out.

Although practically living in the ocean, Woodring first found out about this alarming toxic crisis only 18 months ago, and has since galvanised activists from all walks of life to take action at his side.

Flung together by ocean currents, the trash tsunami – also known as "the plastic vortex" – has become a melted-down "soup" estimated to be twice the size of Texas. Acting as a bonding agent for pollutants, the soup is a toxic bomb; and with an estimated 70 per cent of ocean rubbish sinking, a Mount Everest-sized cache of explosive toxic trash could be lurking just underneath its surface.

"The scale of the issue is a magnetising force," says Woodring, whose path to vortex adventurer reads less ocean warrior and more CEO – he studied at UC Berkeley, Wharton and Johns Hopkins University before working at Merrill Lynch with environmental ventures and building innovations in new media. His current "ocean recovery alliance" involves a partnership with San Diego-based Scripps Institution of Oceanography, who will help capture the debris and study how it could be used.

**Setting sail**

Two boats left for the vortex in early August: the 151-ft brigantine Kaisei – Japanese for "Ocean Planet" – taking a 30-day expedition from San Francisco; and another research boat, from Scripps, joining for a 20-day trip. The team of 25 adventurers per vessel is a motley crew of innovators, scientists, environmentalists, ocean lovers, sailors and sports enthusiasts. They aim to undertake groundbreaking research, including pioneering deep sea analysis, developing a satellite tracking system for the vortex, and assessing the plastics' potential for conversion into diesel and use in commercial applications.

"We are seeking to put a price on plastic and create value from waste," says Woodring. A model of multi-lateralism involving governments, institutions, education, science and commercial partners, Project Kaisei is seeking potential in environmental products that are "under-entrepreneured".

With Woodring's experience in media, the project is integrating widgets, social networking portals and new technology, engaging educational partners and corporations interested in boosting their CSR credentials. "We have broken the inertia and created something exciting that teachers want to teach, and students want to learn," he says.

And aside from a partnership with Google Earth, which is tracking the project's progress, surf brands Quiksilver and Orca are also on board. "Sponsoring organisations can build something employees engage in and feel proud of," he explains. Woodring sees other areas such as desalination and wave energy as having potential, too, but he is always focused on his goal – building Project Kaisei into "a centre for ocean solutions, a portal for ideas, innovations and solutions."

The situation is critical: 95 per cent of the world's plastics are currently not properly recycled, and other vortices are believed to exist in both the Atlantic and Indian Oceans.

Hopefully we're not too late, and projects like this one will help shape a better future. But if Woodring has seen interest in his project skyrocket, and even had random people congratulate him on the street, he is not complacent: "We need people to believe it is possible to clean the oceans and empower them to think about how they can do it." >>

# *The problem:*

## Marine bio-diversity is under threat

# *Trying to solve it:*

## Andy Cornish, director of conservation at WWF Hong Kong

Photography by Brian Ching

The world is spinning on the precipice. Atmospheric concentrations of $CO_2$ are 37 per cent higher than they have ever been at any given time in the past 650,000 years, "and it's going to be disastrous if we continue business as usual," says Andy Cornish, director of conservation at WWF Hong Kong. "Air pollution has been a major issue, climate change and deforestation have hit peoples' consciousness," he continues, "but the sea remains a tricky issue, as it's difficult to see the damage being done underneath the waves."

For anyone who has swum in Hong Kong's waters, comparisons to Thailand and Bali are unlikely – in fact, they're outright ridiculous. But take a step back and imagine a marine cornucopia of giant clams, manta rays, sea turtles and abundant reef fishes – that's what Hong Kong used to be like.

Our expectations of what our seas should be are so poor, it's difficult to realise what Hong Kong could actually rebuild. "You've only got to visit Sydney Harbour to realise you can have a large population around a narrow body of sea that isn't chock-a-block with rubbish and devoid of fishes," says Cornish.

Locally-based from a young age, Cornish wrote a book on reef fish in Hong Kong, adamantly pointing out that Hong Kong has more species of hard coral than the Caribbean. With over 800 dives under his tank, he has recorded 120 species never seen in Hong Kong and one species new to science – unfortunately, it's not called the "Cornish".

For Cornish, keeping oceans clean is not just a "greenie" pursuit – it's about quality of life. "The fact that so many people are using water recreationally is the best hope of society saying 'enough is enough, the government needs to sort our seas out'," he says.

And while conservation is hampered by a lack of funds in many countries, Hong Kong is awash with money; the problem is "at the highest levels in government, where it is seen as not compatible with development."

Things are changing though. Following a petition as part of WWF's Save Our Seas campaign – which was signed by over 58,000 people (a record) last year – the government announced that it will stop commercial fishing in Hong Kong's four marine parks. But while progress on these issues is slowly happening at home, a potentially bigger problem looms overseas.

**The problem at large**

Much of Hong Kong's seafood and many of its holiday destinations lie in the Coral Triangle, which includes a third of all coral reefs and extends from the Philippines to Indonesia, Malaysia, Australia and Papua New Guinea, supporting over 100 million people.

Hong Kong's love of seafood has seen it become the main recipient of fish from the Coral Triangle, and with dynamiting and other destructive fishing techniques rife, reef systems will be in a weakened state to deal with warming temperatures, rising sea levels, ocean acidification and the intensity of cyclones and storms resulting from climate change.

WWF projects the outcome to be a loss of coral reefs and mangroves, degrading marine habitats and decimated fisheries – projections show the ability of reef systems to provide food for coastal populations in the Coral Triangle decreasing 50 per cent by 2050, moving to 80 per cent in 2100.

"The effects of climate change on Hong Kong's waters, or those of the fantastic places we take our holidays in, or our seafood from will be harsh," says Cornish, "it's in everybody's interest to stop the damage now." >>

# *The problem:*

## Can being environmentally friendly make good business sense?

# *Trying to solve it:*

## Christophe Bongars, CEO of SustainAsia

Photography by Rico Tsui

A sustainable lifestyle usually appears more expensive, and the same has rung true for running a greener business. Until now.

Christophe Bongars has over 20 years of experience in the water, industrial gases and utility industries. His career as an engineer began with him travelling across Europe, Africa and Asia for Degrémont, a water treatment plant specialist and subsidiary of Suez Environment. Bongars later took charge of Suez's industrial water business in Asia-Pacific.

"Already back then I felt the future brewing up," Bongars recalls. "Large corporate clients such as Shell were asking questions about the environment, making the planet a growing part of their strategy." In 2004, Bongars decided it was time to take care of a sector that was close to his heart and founded SustainAsia, a green advisory firm.

Catering for specialised investment funds and corporate clients, SustainAsia provides the financially savvy with independent advice, expertise and the tools they need to move forward. "The environment and a healthy profit are not mutually exclusive," explains Bongars. And he is adamant that those companies who don't take natural resources like water into consideration will not only destroy the planet, they will soon be out of business, too. "For me," Bongars explains, "it's to be sustainable or not to be. But when I began, people thought I was completely crazy."

The fact is that most people just can't reconcile the idea of making money with the idea of being "green". But that's where Bongars steps in: "I am passionate about this subject, but I am also a businessman. I have experience of the corporate world, I have sophisticated clients, and I know what they need to do to make a difference. Someone once said I was a 'greenie in a suit'. I like that idea."

**The tools for the job**

There are two ways to change the world. There's the all-important evangelisation work done by countless organisations and NGOs ("I have enormous respect for them," says Bongars) – this approach proceeds from the "outside". Then there's the SustainAsia way, from the "inside": "I bring neutral and independent advice to the table," explains Bongars. "I'm not here to judge or lecture; just to help clients make money, and make sure they don't miss out on any future business opportunities."

So how does all of this work in practice? "For example," says Bongars, "overseas investors regularly call me to ask about investing in the water industry in China. I educate them on the risks and opportunities."

SustainAsia can then help implement any of the investment strategies and participate in transactions. SustainAsia is also the Asia-Pacific representative of software developer Enablon, a leader in risk, compliance and governance IT systems. These applications help clients better manage their green and sustainability agenda.

But why fix what's not broken? "For me, ignoring sustainability in your business or investments is like driving a car looking in the rear-view mirror while missing the lorry in front," says Bongars. "SustainAsia is here to future proof your business."

Sustainability is a journey. One that we have all embarked on whether we know it or not. Those who understand the regulations that will increasingly drive sustainable practices; who see the demand of customers in search of a healthier lifestyle; and who grasp the time scale necessary for this essential transition – those are the companies who will actually thrive in the future.