

## Reef Product Alliance (RPA)

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This business plan was written by the non-profit Conservation and Community Investment Forum (CCIF), a project of the Tides Center. The plan calls for the creation of a separate, for-profit limited liability investment corporation- the Reef Product Alliance (RPA). RPA is to be managed by an independent entity of professional venture capitalists and tropical fisheries experts.

### Objective

RPA's objective is to finance the conversion of leading companies in the international aquarium fish and marine ornamentals trade to fully sustainable fish collection, handling, holding, transporting, and marketing practices. To aid in this conversion, RPA will provide investment capital (both equity and debt) as well as technical and managerial support. RPA's initial emphasis will be the Southwestern Pacific region, particularly Indonesia and the Philippines.

The Southwestern Pacific Area – Indonesia and the Philippines, in particular - features the world's finest coral reefs. The species diversity of this area exceeds that of such famous reefs as the Red Sea by a factor of five<sup>1</sup> – in fact, most the planet's coral and coral reef fish speciation originated here. Unfortunately, these areas are currently under grave threat from destructive fishing – the current intensity of cyanide and dynamite fishing for food and aquarium uses is completely unsustainable.

The economic incentives driving this destruction are powerful and likely to remain in force far beyond the point of no (ecological) return. In these politically unstable areas, regulators are powerless to stop the increasingly well-financed destructive fishing operations. International aid funding, while extremely helpful to the preservation of specific areas, is not likely to significantly slow the pace of overall destruction.

The RPA aims to change the underlying set of economic incentives by financing the conversion of key reef product exporters and importers to fully integrated and sustainable operations. RPA will be set up as a pledge fund managed by a group of experienced venture capitalists and tropical fisheries experts located both in San Francisco and in Bali, Indonesia. Investors in RPA will receive both economic returns (anticipated ROIC is about 15%) and ecological return as the aquarium fishing industry is reformed.

### Strategy

RPA will bring economic and ecological order into the highly inefficient and often destructive aquarium fishing industry. It will provide debt and equity financing to select existing importers and major exporters (“platform companies”), allowing them to integrate the currently completely dis-intermediated chain of collectors, middlemen, exporters and importers. By controlling the entire chain, the platform companies will be able to dramatically decrease mortality, optimize order management, inventory control, and transportation, as well as impose strict ecological controls over

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<sup>1</sup> Adapted from Veron (1986) “Corals of Australia and the Indo-Pacific” Produced by The Nature Conservancy's Hawaii Natural Heritage Program, September 1995.

the reef fishing operations. This will create significant improvements in profitability for the platform companies, which will flow back to RPA investors in terms of dividends as well as the eventual sale of the business.

RPA's timing is fortuitous. Today there is a sharp discrepancy between the demand and the supply of sustainably harvested, high quality fish. While demand for low-mortality, cyanide-free fish is strong and growing (estimated 70% of European demand and a growing demand in the US<sup>2</sup>), the largest export countries in the world, Indonesia and the Philippines, are deeply tainted by their past and, unfortunately, current practices. There is a near complete lack of supply of fish whose harvest, handling, and husbandry is sustainable and certifiable under the stringent standards prepared by the Marine Aquarium Council (MAC) (MAC standards can be found at [www.aquariumcouncil.org](http://www.aquariumcouncil.org)). Only a few exporters in Australia, Hawaii, and isolated island nations currently operate under certifiable practices. The reason for this critical shortage of supply is simple: most tropical reefs are located in developing economies which lack the regulatory framework, access to investment capital, and managerial know-how required to build the sophisticated fish handling, chain of custody control, and tracking infrastructure required for sustainable aquarium fish collection and export.

RPA's investments will allow selected importers and exporters to create a reliable supply of certified aquarium fish. This, in turn, will allow aquarium fishing to be put in the service of reef preservation. By adhering to strict fishery management and conservation standards, and by providing income to local communities rather than outside "raiders", aquarium fishing can become an integral part of marine conservation efforts. In addition, a robust supply of certified fish into US and European markets will help build a brand of "premium" fish which will force other industry participants to follow suit. An economically viable long-term local presence will allow RPA's platform companies to field test a set of truly sustainable reef fishing practices, to train a reliable cadre of skilled collectors, and to provide local communities with income stability. Lastly, an early demonstration of the economic feasibility of MAC standards will give the certification process strength and recognition.

## **Forces Creating Reform Opportunity**

There are two types of destructive reef fishing in the Southwestern Pacific Area: dynamite fishing for locally consumed food fish, and cyanide fishing for aquarium fish and for the Chinese live food fish markets. The intensity of these fisheries is completely unsustainable – fewer than 10% of Indonesian reefs are still considered pristine, over 35% completely destroyed, and the remainder in trouble.<sup>3</sup>

In the case of cyanide-based aquarium fishing, collectors use the poison to stun reef fish that have taken refuge in a coral. In many cases, the coral is then broken apart to get to the stunned fish. The sodium cyanide solution settles on neighboring coral and kills the great majority of polyps. This type of fishing is a very significant contributor to the destruction of the unique Indonesian and Philippine reefs. The harvested fish typically move through a complicated chain of middlemen, exporter, consolidators, and importers to arrive at the hobbyist's tanks. Mortality rates throughout the chain for cyanide-caught fish range from 30 to 80%.<sup>4</sup>

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<sup>2</sup> Interviews with industry experts, CCIF, August 2000-July 2001.

<sup>3</sup> Ministry of Forestry and Estate Crops, Republic of Indonesia, "Pattern of Coral Reef Utilization in Indonesia", a presentation and report at the International Coral Trade Workshop – Development of Sustainable Management Guidelines, Jakarta, Indonesia, April 9-12, 2001

<sup>4</sup> Field interviews with Fisherman, middleman, exporters, and importers, CCIF, August 2000- June 2001.

Cyanide is by no means the only way to catch aquarium fish. Successful operations in Australia, Hawaii, and Fiji have shown that non-destructive fishing methods, using a variety of hand net methods, are just as effective. MAC has developed a comprehensive certification protocol that specifies, in detail, the harvesting, monitoring, handling, tracking, and transportation practices required to convert the industry to sustainable practices. However, a number of forces conspire to make widespread adoption of these standards difficult, including:

- **Disorganized value chain.** The aquarium fish value chain is, to a large degree, dis-intermediated. There is virtually no way to track a fish from the collector to the hobbyist's tanks— making chain of custody certification difficult, if not impossible. It also works against “early adopters” of the certification standards, who incur considerable extra costs, only to see their certified fish “disappear” in the value chain.
- **Lack of local control.** The vast majority of the profits in the aquarium fishing business accrue to exporters and importers, not to the local collectors. In addition, in some areas free access laws allow non-local collectors to wreak considerable havoc on the “home reefs” of local communities. The reefs have therefore not been perceived as a source of significant economic income, and their destruction has, as a rule, not been opposed by locals.
- **Capital constraints.** It takes considerable capital to convert a fishing operation to sustainable practices: a baseline assessment must be conducted, followed by periodic monitoring, holding and transportation facilities must be upgraded, fishermen must be trained, products must be tracked, changes in harvest levels must be financed, etc. Few existing operations today have the capital resources to absorb these costs.
- **Relatively low cost of mortality.** Exporter profits are relatively insensitive to the cost/mortality of the fish; for the lower end fish, costs of goods sold (COGS) accounts for less than 5% of total costs. Instead, profits are driven by optimizing the mix of species, rapid turnover, and managing transportation costs. The economic savings from mortality reduction alone are thus not enough to offset the aforementioned capital costs.
- **Lack of regulatory incentive.** The regulatory context for aquarium reef fishing ranges from the “free-for all” fisheries of Indonesia and the Philippines to the comprehensively managed coral reef fisheries of Australia. In those areas with the most exquisite reefs and the most important biodiversity (i.e., Indonesia), there are virtually no enforced restrictions on destructive fishing.

Despite these hurdles, a number of factors conspire to make this the right time for profitable industry reform. These include:

- Demand for “sustainable” aquarium fish far outstrips supply;
- The economic benefits of integrating the operations of collectors, middlemen, exporters, and importers are considerable and more than offset the capital costs associated with converting to sustainable practices;
- There are a number of concrete opportunities to build fully integrated supply networks that would become the first certifiable operations in Indonesia and the Philippines. These opportunities involve leading importers and exporters that are highly interested in converting (albeit cash constrained); and
- After several years of development, MAC core standards are now complete.

Against this backdrop, RPA will act as a catalyst for reform. It will support, with capital and expertise, the development of fully integrated, sustainable, and MAC certified aquarium fish supply networks. These networks, in turn, will help support and build demand for certified products in the US and Europe forcing the remainder of the aquarium industry to follow suit.