

EDITORIAL NOTE: CAUSAL CHAIN ANALYSIS, PERU

On April 11 a preparatory workshop was held at UNDP headquarters in Lima focusing on the next Causal Chain Analysis (CCA) that GEF-UNDP-Humboldt Project will perform between 21st and 23rd May 21. The purpose was to analyze the progress of the five thematic reports for Peru which are being conducted by consultants on the following aspects: ocean productivity, resources and fisheries, ecosystem health, socioeconomics and governance. There was a satisfactory level of progress in drafting the ecosystem diagnosis. Also IW:LEARN methodology was used for the CCA to determine the immediate, underlying and root causes of the main problems or impacts that each of the consultants has identified and will include as annexes in their reports.



The Peruvian consultants of the five thematic reports gathered to exchange ideas and report on the progress of their respective studies. IMARPE, Ministries of Environment (MINAM) and Production (PRODUCE) participated.

FISHERY OBSERVERS CONFERENCE, CHILE

Between the 8th and 12th of April, the Seventh International Fisheries Observer Conference (IFOMC) was held in Viña del Mar, Chile. The future of marine and fisheries science is mainly based on data obtained from fishing vessels used as an observational platform for scientists and fishery managers. The objective of the Conference was to improve fisheries monitoring programs worldwide through the exchange of practices and the development of new methods of data collection & analysis, as well as providing a forum for dialogue between those responsible for monitoring fisheries and those based on the data they collect. The goal is to improve the use of fisheries data to support sustainable resource management.



The elevated cost of high resolution monitoring aboard scientific vessels, as well as the growing demand for information from the scientific community, make it unthinkable to obtain data with traditional methods at the required level. For this reason the IFOMC promotes cooperation between scientists and the fishing and shipping companies as a practical, economic and efficient way to get the volume of information needed to develop ecosystem approaches to fisheries management.

BEACH CLEANING CAMPAIGN, PERÚ

On March 2nd & 3rd, the National Beach Cleaning Crusade "Do it for your beach" was held, under the slogan "Leave the places that you visit better than they were before you arrived". Thanks to the response of people, organizations and companies that joined the beach cleanup 14 tons of solid waste were recovered from 67 beaches on the Peruvian coast from Tumbes to Tacna. A citizen group led the campaign "Do it for your Beach" cleaning in San Bartolo, collected 24 kg of rubbish. The main objective was to collect inorganic waste from the beaches, particularly plastics, cans and glass, with the participation of citizens.



The beach cleaning campaign encourages citizens to enjoy their beaches at the same time that they collaborate with the cleaning and beautification of the marine coast

HAKE ASSESSMENT WORKSHOP, CHILE

On April 18th an IFOP workshop was held on the FIP Project 2012-08: "Hydroacoustic assessment of hake spawning stock 2012" at the headquarters of IFOP. During the event, the results on distribution of stock, assessed biomass and fish size composition was presented, also some aspects on sex ratio and age of the stock were shown, including the fertility index, macroscopic maturity stages, maturity, food and predatory items, companion species and aggregation features of the stock within the studied area. Source: IFOP.



The southern hake is one of the main Chilean species of the marine ecosystem, and also supports one of their most important fisheries. Although the methodology that has been used is focused on acoustic methods, in fact it is multidisciplinary research which demands a high degree of coordination between scientists of different disciplines and operators of the research logistics.

WORKSHOP ON ECOCERTIFICATIONS, PERU

On March 9th, a pilot seminar on Fisheries Certification and Eco-labeling was developed by the GEF-UNDP-Humboldt Project at the Universidad Nacional José Faustino Sánchez Carrión in the city of Huacho. The fishing certifications were originated in the FAO



guidelines for ecolabelling of fish products, a voluntary process that link producers and consumers all along the value chain of fisheries. A similar event was held in Chile on 15.04.2013 in Valparaiso with MSC and Friend of the Sea (see below). *In both Chile and Peru, there are fisheries that might access the economic benefits of eco-labels for capture fisheries. However, stakeholders should be properly informed about the cost implications.*

The ecolabels are designed to award and certify food products from well-managed marine capture fisheries, and focus on issues related to the sustainable use of fisheries resources. The specific objectives of the workshop were: to review some basic concepts about fish ecology; to make a diagnosis of main Peruvian fisheries, to describe the objectives of fisheries ecolabeling and certifications, to show the main existing alternatives of certification, to study the MSC certification (Marine Stewardship Council) and to review the concepts related to the chain of custody for certified fisheries.

LIFE CYCLE ANALYSIS METHODS, CHILE

On 2nd and 3rd April, a workshop on "Life Cycle Analysis of Fishery Production Chains" was delivered by Dr. Pierre Freon (IRD) under the auspices of the UNDP GEF-Humboldt Project in Valparaiso, Chile. The purpose was to introduce the use of industrial ecology methods related to Life Cycle Analysis (LCA) of materials, supplies and devices to support environmental sustainability. Dr. Freon presented several case studies developed in Peru in relation to industrial and artisanal fisheries of anchovy for fishmeal and fish oil and products for human consumption. Source: IFOP.

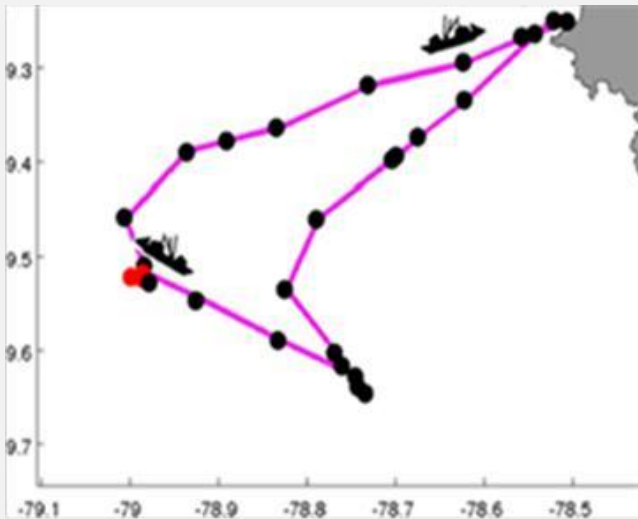


Dr Pierre Fréon has been conducting the Anchovy-Supply Chain Project over the last five years in Peru, and its initial findings are now available through scientific papers in journals of industrial ecology. These achievements help to generate contributions to ecosystem management for the governments of Peru and Chile, and also for fishing companies.

SATELLITE MONITORING SYSTEM WORKSHOP, PERU

On March 11th a workshop sponsored by the GEF-UNDP-Humboldt Project took place at the headquarters of the Ministry of Environment (MINAM) to discuss technical improvements for Satellite Tracking System (SISESAT), announced by the Ministry of Production (PRODUCE). The workshop was conducted by Dr. Rocio Joo (IRD), who showed various ecosystem developments produced thanks to the use of the information provided by the SISESAT. In this regard it was noted that the new system should have to increase in the frequency of emitted signals and also to include the artisanal fleet in the

system with an emission interval of not more than 15 minutes during monitoring. On the other hand, it was concluded that SERNANP (National Service for Natural Protected Areas) must be included as a system user and that it should not only be used in the Monitoring Control & Surveillance of the fleets, but also to greatly increase the capacity to carry out ecosystem research.



In this sample image, the black dots indicate satellite broadcast positions during a single fishing trip (one vessel only), and the red dots indicate the places where the vessel made fishing hauls, as deduced from the analysis of routes. Statistical analysis of all positions yields an overestimation of only 1% of the total number of hauls actually performed.

ANCHOVETA-SUPPLY PROJECT RESULTS, PERU

On March 21st a workshop sponsored by the GEF-UNDP-Humboldt Project took place at the headquarters of the Ministry of Environment to evaluate the results obtained so far by the IRD project called "Anchovy-Supply Chain" ("Sustainability of supply chain focused on the Peruvian anchovy: from fish to the dish") with the support of various entities, including universities, research



institutions and NGOs. This workshop was attended by Drs. Pierre Freon, Yuri Landa and Angel Avadi.

The main workshop conclusions were the following: the impact or ecological effects from the entire Peruvian anchovy industry is much lower than in other main world

fisheries; the environmental impact of the artisanal fleet is larger than the industrial fleet, but generate higher added value and jobs; the largest ships are not the most efficient, and neither are the smallest; and, by comparison trout farming in Peru is far less efficient than the fisheries themselves.

Representatives from the Ministries of Environment Affairs (MINAM) and of the Production (PRODUCE), as well as representatives from fishing companies and NGOs attended the workshop intended to introduce the findings of the IRD Research on industrial ecology.

FISHING ECOCERTIFICATION WORKSHOP, CHILE

This activity took place in Valparaiso on April 15th in the frame of a strategic alliance between the GEF-PNUD Chile-Peru Humboldt Project executed by IMARPE and IFOP, and the Integral Support Agreement for Decision Making Process for Fishing and Aquaculture (ASIPA). This workshop was titled "Meta Quantitative Data Associated to the Monitoring of Benthonic Fisheries under the TURF regime" and Meta qualitative N°1, Indicator 3:

"Certification of Fisheries". The objective was to make the stakeholders aware of the background information related to the implementation of certification of fisheries process in Chile due to its importance regarding the conservation and sustainability of natural resources.

Source: IFOP



The globalization of business operations involve the growing of use of eco-labels, linking the producer to the purchaser. This will contribute to the sustainability of ecosystems and also to economic benefit of those that depend on it.

SPORE CULTURE PROJECT RESULTS, PERU

The Presentation of results of the Project "Implementation of a red algae (*Chondracanthus chamissoi*) biotechnology spore culture" was held at the UNDP headquarters in Lima as implemented by the company Acuicola Mares del Sur (ACUISUR) with funding from the National Program for Innovation, Science and

Technology (FINCyT). In this regard, Ramiro Rojas, Project Manager, said that during the project 200 artisanal fishermen were trained in Ica, Lambayeque and Piura for the sustainable cultivation of marcoalgae, free of charge as part of a partnership with the National Fisheries Development Fund (FONDEPES). "The income of fishermen increased 22% thanks to the project. Not only men work, also their wives are responsible for the selection of algae and cleaning, they contribute to the final product quality". (Source: Acuisur).



The spore culture technique is a promising possibility for repopulation of kelp in areas affected by indiscriminate harvesting. The restocking also allows the recovery of other species whose breeding habitat consists of macroalgae beds. It is also an excellent business opportunity for companies and artisanal fisherfolk.

WORKSHOP ON MARINE CONSERVATION, CHILE

A Marine Conservation Workshop was held in Las Cruces, Chile on April 18th and 19th organized by the David and Lucile Packard Foundation and the Walton Foundation. The major objective of this meeting was to identify opportunities for cooperation between the two entities and universities, NGOs and other academic centers in Chile.



The workshop brought together 26 Chileans and other experts from other countries, all of whom represent universities, NGOs, research centers, marine, economic and social, as well as international agencies.

The topics discussed were: the industrial fisheries, marine protected areas, the conservation of the marine environment and territorial user rights in relation to co-management areas. The challenge was emphasized to ensure coordination between authorities and the

numerous stakeholders in the implementation of ecosystem-based management that ultimately must be based on new laws and territorial regulations to achieve the sustainable use of goods and services provided by the HCLME.

SERNANP WORKSHOP ON MASTERPLAN, PERU

The GEF-UNDP Humboldt Project, in coordination with the National Service of Natural Protected Areas (SERNANP) are conducting a series of workshops in different locations along the length of the Peruvian coast (from Ilo to Sechura) for the "National Reserve Vision Design as part of the Master Plan development for the National Reserve System of Islands, Islets and Capes RNSIIPG" and for a "Dialogue on Diversity, Community and Coastal Ecosystems". The objectives are to identify conservation objectives, key species and to produce stakeholder lists and identify problems that affect the sustainability of local ecosystems. The workshops were also focused on promoting the concepts of Ecosystem Based Management (EBM) and its tools.



Although certain fishing techniques are banned because of their damaging nature for Marine Protected Areas, there are still cases observed of law violations. Identifying why illegal practices continue is one of the workshop objectives.

In each workshop the major problems relating to four main themes were identified: fishing, biodiversity, environmental quality and market incentive mechanisms. Indicators were determined by stakeholders as well as suggested solutions to resolve problems identified. During the third day of each workshop there was a meeting with local authorities to present the problems identified the previous two days, and the possible solutions and commitments to develop EBM concepts.

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