

Leather & Footwear: Appendix B- Case Studies of innovative projects

1. PPPs for Foot-and-Mouth Disease (FMD) Control in Brazil and Bordering Countries

Following the major outbreak in 2000, Brazil eliminated FMD through vaccination in 15 states, comprising 84 percent of its cattle herd, and set a target date of 2006 to be entirely FMD-free (USDA-FAS 2005). Much of this success has been attributed to successful PPPs in animal health programs and to an ambitious traceability program, known as **SISBOV**, to identify and certify all cattle born in or imported into Brazil.

The SISBOV program began in 2002 to trace the birthplace, production system, movements, vaccination details, sales, and slaughter of all cattle either born in Brazil or imported from foreign countries. SISBOV is implemented through 30 private agencies that have each been certified by the Ministry of Agriculture, Livestock, and Food Supply (USDA-FAS 2005). The SISBOV program is being gradually scaled up in a phased manner; by the end of 2007, all beef produced in Brazil was to fall under the SISBOV program. The cost of the program was funded through a US\$2.50 fee per animal and is expected to cost US\$400 million once fully implemented (USDA-FAS 2002, 2003).

The cattlemen and breeders who want to enter SISBOV must first choose a certifying entity to be registered in the system. The cattleman must inform the certifier about all the events related to each animal: how it was bred, its principal food, supplementary food, vaccines etc. It should also report when the animal dies or is sold. The cattleman identifies the animals according to the individual registration number issued by Sisbov, which should be confirmed later by the certifier by means of a technical visit to the property. Informed of the realization of the identification, Sisbov authorizes the certifier to issue the Animal Identification Document (AID) and issues it to the cattleman. The ID serves as identification for the animal (Normative Instruction 2002). Later, the certifiers send the data collected at the farms to the National Data Base maintained by the Ministry of Agriculture in Brasilia.

After the conclusion of the identification process of the animals, the certifier should make periodic visits to the property, to check and audit the information supplied by the cattleman. The certifier is the faithful provider of the information and will be held accountable by the Ministry for any information about the animals identified.

The government does not determine a single type of identification for the animals. Normative Instruction 21, of April 2004, specifies only that the animals should be properly identified with some combination of earrings, brands, tattoos and electronic devices.

In terms of electronic devices, the Brazilian Company of Agricultural Research (Embrapa) developed a transponder to electronically store the animal's identity. The transponders are small devices with an internal microchip, a coil that can serve as an antenna, and optionally by other devices, such as for example a Global Positioning System for localization by satellite. The transponders are read with another device, called a transceptor or scanner. This device issues radio waves that reach the transponder and trigger the coil, generating a small electric current and activating a microchip. This microchip then responds, also in radio waves, emitting the identification code recorded within it.

Finally, additional PPPs are in place on the marketing side in export markets. Promotion activities are the purview of the Brazilian Beef Processors and Exporters Association (ABIEC), which engages in trade

lobbying and marketing in overseas markets and works in conjunction with the export promotion agencies of the Ministry of Agriculture.

2. Beef Quality Assurance Scheme(BQAS) - Ireland

The Beef Quality Assurance Scheme (BQAS) was developed by a Technical Advisory Committee (TAC) representing Board BIA – the Irish Food Board; Teagasc; the Food Safety Authority of Ireland (FSAI); the Department of Agriculture and Food (DAF); industry (producers and processors) and technical experts. The primary objectives of the Beef Quality Assurance Scheme are:

- To set out the requirements for best practice in beef production at farm level,
- To provide a uniform mechanism for recording and monitoring beef quality assurance criteria on the farm with a view to achieving continuous improvement in production standards,
- To provide a means of demonstrating best practice at producer level,
- To underpin the successful marketing of quality assured beef.

Membership of the Scheme is voluntary and open to all Beef Producers that have a valid Herd Number. Producers seeking membership must initially apply in writing, either directly to the Certification Body (or to Board BIA) using the Application Form provided with this Standard. A separate Producer Declaration Form will be completed at the audit. The application will then be evaluated and, if appropriate, a full independent audit of the Producer will be carried out to evaluate the capability of the applicant to meet all the requirements of the Standard. When the Producer is deemed to have complied with the requirements of the Standard as determined by independent audit, the Producer will be considered for certification under the Scheme. When certified, the Producer will be issued with a Membership Certificate and will be listed on a register/database. A BQAS register/database indicating the status of all certified producers will be maintained. Board BIA may also seek permission from certified Producers to publish production related data on the database in order to assist Producers to market their beef animals. After the initial successful application, monitoring of Producer's on-going compliance with the requirements of the Standard will be carried out by Board BIA or its nominated agents through audit. Each Producer will be independently audited at determined intervals. The maximum interval between successive audits will be 18 months. Professional Auditors with sectoral experience will carry out these audits and a full report will be issued to the Producer. Board BIA reserves the right to carry out Audits or Spot Checks on an unannounced basis for the purposes of verifying compliance with the requirements of the Standard or to determine that corrective/preventive actions specified during audit are in place. Auditors are entitled to seek access to relevant regulatory reports. The full onus of responsibility for compliance with the requirements of this Producer Standard is on Producers participating in the Scheme and not on Board BIA or its agents or any other third party. All the producers/breeders need to employ the best practices that are mentioned under the following categories in order to get the certification:

- Animal Welfare And Stockman-ship
- Animal Health
- Medicines: Administration, Storage And Disposal

- Visitors And Access Control
- PEST Control
- Animal Nutrition
- Animal Housing
- Animal Transport
- Environmental Protection
- Animal Identification and Traceability
- Animal Remedies
- Animal Feeds and Records
- Clean Livestock Policy

3. Glynwood Modular Harvest System: Mobile Slaughterhouse Case Study

Glynwood Farm is a sustainably minded farm in Cold Spring, New York that raises a variety of livestock and a few vegetables. They launched a project called MHS project to provide easier access to slaughtering facilities. The MHS is the first USDA approved mobile unit with the capacity for in-unit slaughtering of large animals. The MHS is one of only 5 mobile units for large animals that are licensed by the USDA. It is the first one licensed by the USDA east of New Mexico. With a daily processing estimate of twenty cows, (and a higher estimate for smaller animals), the design is highly efficient. The MHS consists of four modules that combine to form a miniature slaughterhouse.

The specific modules are as follows:

Slaughter Unit: A primary 53-foot trailer providing inside-unit slaughter, carcass preparation, and chilling. Unlike many processing units, this module allows for indoor slaughtering and waste containment.

Refrigeration: A refrigeration truck allowing for railing of quartered sides or carcasses after they are chilled. They can then be delivered to a 'cut and wrap' facility according to individual farmer instruction. This unit doubles as a delivery truck, allowing for efficient delivery of meats to a cutting and wrapping facility while the remainder of the MHS remains for further processing.

Waste: A 'waste or inedible parts' trailer, meeting hygienic regulations for disposal of offal, manure, and other waste according to municipal requirements. Unlike single units, this option allows the MHS to meet various waste regulations from dock site to dock site.

Office: A small office trailer with amenities meeting USDA requirements and employee needs.

4. Eco-efficiency in a Leather Tannery: the Case of Curtigran in Colombia

Curtigran Ltd. is a 13-employee leather tannery situated in the metropolitan district of Bogotá. When faced with increasing environmental legislation, waste water treatment problems, and decreasing productivity and product quality, the company saw eco-efficiency as a strategy which could ensure its survival. In 1994, Curtigran began participation in a pilot project developed by the association for small

and medium eco-efficient enterprises in Latin America (PROPEL-- Promoción de la Pequeña Empresa Eco-Eficiente Latinoamericana). PROPEL worked in co-operation with the local tanner's association (ASOCUR-- Asociacion Curtiembres) and conducted a comprehensive sectoral study before choosing Curtigran as one of the pilot companies. A cost system and an environmental impact assessment were first implemented in Curtigran. Then with the help of external consultants, expert tanners and a training programme, clean and efficient technologies were developed in-company. The company has since reduced its pollution by 50 per cent, improved the quality of its products and increased its product yield. Curtigran has become a local champion and its success will be used by PROPEL to promote eco-efficiency in tanners across Colombia. The eco-efficiency approach is also now being applied to other sectors such as floriculture and foundries.

5. The "Cows to Kilowatts" initiative in Nigeria

The "Cows to Kilowatts" initiative in Nigeria is a partnership project which aims to reduce the water pollution and greenhouse gas emissions from slaughterhouse waste. Building on innovative technology from Thailand, the project converts abattoir waste into household gas and organic fertilizer, providing local communities with clean, cheap fuel.

The solution involved capturing the gas emissions and transforming them into a useful product. They identified relevant technology that had been developed by a **Thai research institution, the Center for Waste Utilization and Management at King Mongkut University of Technology, Thonburi**. This was based on the use of anaerobic fixed film reactors in the treatment of agro-industrial waste and the production of biogas. By modifying this technology, slaughterhouse waste could be turned into clean household cooking gas plus organic fertilizer.

This approach offered at least three crucial advantages. Firstly, it would minimize water pollution from slaughterhouse waste. Secondly, it would significantly reduce the greenhouse gas emissions generated by the slaughterhouse and/or by the treatment of its waste. Thirdly, it would create valuable biogas by-products.

Implementation Stage I: Building Partnerships

Several organizations have provided key inputs to the project:

- GNEEDR developed the initial project idea, conducted primary research on water pollution, represents the initiative and handles the construction of the plant.
- The Nigerian Center for Youth, Family and the Law provides legal advice and helps engage local stakeholder groups, such as the local butchers' association and the Bodija market development association.
- The Sustainable Ibadan Project was central to securing the support of the Nigerian government.
- The World Bank's Global Development Marketplace gave an important impetus to the initiative by suggesting the integration of a renewable energy component in its design.
- The Thai research institute was the technology innovator and technical adviser in the design and construction of the bioreactor and in the adaptation of the technology for use with slaughterhouse waste.

Implementation Stage II: Raising Finance

The capital requirements for designing and constructing the waste treatment and biogas plant, as well as for administering the project and consulting with local stakeholders, amounted to around US\$500,000. The project is designed to be commercially viable and plans to sell its household cooking gas at a quarter of current market prices, i.e. US\$7.50 per 25 litres. By producing around 270 cubic meters of compressed biogas a month, the plant would generate returns on investment after two years. With an estimated lifespan of 15 years, the plant is therefore expected to create substantial economic returns. UNDP provided the necessary start-up capital through its Energy and Environment program.

Implementation Stage III: transferring the technology & building the plant

The Biogas Technology Research Centre of Thailand's King Mongkut University of Technology Thonburi had developed an innovative technology for treating agro-industrial waste and generating biogas based on many years of research under an Asian-Australian cooperation program. Through the use of anaerobic fixed film reactors, the institute had achieved much higher treatment efficiency, handling larger quantities of waste and generating high quality biogas at a faster rate than conventional bio-digester technologies. Prior to the Nigerian initiative, however, the technology had been applied successfully only to treating waste from a rice starch factory and from a fruit canning factory. The Thai institute agreed to work with GNEEDR to adapt its anaerobic fixed film reactor technology for use with slaughterhouse waste. Successful test results showed that the adapted reactor could handle from two to ten kilograms of "chemical oxygen demand" per cubic meter (COD is used as a measure of the amount of organic pollution in wastewater), with a retention time of two to four days. It yielded between 0.4 and 0.5 cubic meters of biogas per kilogram of COD, containing 60 to 70 percent methane. In the Cows to Kilowatts case, the Nigerian Federal Ministry of Environment agreed to receive and transfer the resources to the partnership. This, however, involved a number of bureaucratic hurdles.

6. Project 'Turquality' - Turkey

Curtigran Ltd. is Turkish Government undertook a project called 'Turquality', an accreditation system for the product groups with brand potential to upgrade the perception of products made in Turkey. The Turquality program mainly consists of two complementing activities. On one side, there is the development of a "quality manual and accreditation scheme" which defines the quality standards which applicants will be required to meet in order to be accepted in the program and for use of the Turquality logo and brand. On the other side, an articulated auditing program is currently being implemented with the aim to "benchmark" Turkish companies with international best practices. The aim was ' a national branding strategy', to bring world class standards and best practices to Turkish industries , to brand Turkey itself, so the perception can be created on a global scale, that it is a place where fashion and brand creativity is a reality, to communicate the above to the global market. . The purpose is to provide each participating company with a dynamic tool to identify its weakness areas in the path towards excellence.

The Turquality Program seeks to improve the image and respectability of Turkish products generally through subjecting applicants to quality assurance evaluations. In the event applicants receive the coveted Turquality logo, the Turkish government may provide subsidies of up to US\$ 5,00,000 for marketing and distribution; and US\$ 3,00,000 for design and development. "Turquality program, aims to create 10 world brands in Turkey within 10 years, and is much more than a branding program".

To support selected Turkish brands in a systematic way covering all the operational processes, to furnish training, consultancy and coaching to the best companies of Turkey for global competition, this program takes on a mission to subject the companies to a group of training, consultancy and coaching processes in order to support the achievement of such companies in international markets. By means of a study which will be carried out simultaneously with the services in the first level the companies shall be evaluated in comparison of their weaknesses and strengths on the basis of their commitment for becoming a brand besides their operational and managerial activities.

The operational activities observed in evaluation phase shall be examined under following primary headlines: Supply Chain Management, Customer Relations Management (CRM), Organizational Structure and Human Resources, Institutionalism, Finance, Information Technologies, Brand Management

By means of this study the candidate companies promising the most powerful potential for being champions in terms of developing world's brand shall be selected; and an opportunity to take the advantage of a serial of support initiatives in advanced level shall be granted to such companies. The above branding strategy has been successful and today more and more Turkish companies are coming on to the global map. A similar national branding strategy should be adopted by an authorized body aiming to create Indian brands with world class practices and quality products. The perfect mix of government support and adoption of best business practices will help Indian brands to deliver the best to the market.