

Marketing Approach to Conserve Agricultural Biodiversity ¹



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Many developing countries are rich in agricultural biodiversity, much of which is used for farm consumption only. As farmers increasingly produce crops for the market to obtain income, their immediate dependence on agricultural biodiversity tends to diminish and they grow fewer crops or/and a lesser number of varieties. Hence, commercial food production often goes hand-in-hand with the reduction of cultivated crop diversity.

Consequently, taking advantage of specific market trends that explicitly help to enhance crop diversity is an important challenge. For example, consumers in developed countries increasingly seek to consume novel and exotic foods, and this trend may be exploited to conserve diversity through product development.

Within a context, a main concern for research and development (R&D) institutions is how to target and exploit these new market opportunities that enhance

both farmers' incomes and *in situ* agricultural biodiversity. The key question is: "How and to what extent should public institutions adapt their strategies to effectively collaborate with private enterprises, so that their research efforts yield competitive products and a higher probability of reaching positive impact on both targets, poor families and diversity?"

The challenges of developing new products

Declining demand and consumption of certain crops and their varieties is the main reason for genetic erosion. Therefore, the challenge starts with identifying specific attributes of these materials that respond to new, unsatisfied consumer needs relative to health, cultural, aesthetic or other considerations. Successful product development and marketing, targeted to well-defined consumer profiles, are keysteps toward sustainable agricultural biodiversity conservation. However, this may be very difficult to attain because:

- farmers expand production only when a real market demand already exists assuming that supply is not artificially induced by public subsidies and/or politically-oriented measures;
- enterprises in developing countries rarely make big investments in product development, because interest rates are high and the initial market size of new products derived from minor crops is minimal; and
- R & D institutions are mainly non-profit organizations without market focus, and therefore, lack demand-oriented product development and marketing skills.

¹ This article is reproduced from the a sourcebook on participatory research. The original reference is: Bernet T., Hibon A., Bonierbale M., and Hermann M. Market Approach to Conserving Agrobiodiversity. In: UPWARD. 2003. Conservation and Sustainable Use of Agricultural Biodiversity: A Sourcebook. User's Perspectives with Agricultural Research and Development. Los Baños, Philippines.

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Common working paradigms of public and private institutions

	R&D Institution	Private Enterprise	R&D Institution with marketing approach
Perspective	Altruistic	Profit	Social impact
Motivation	Philanthropic	Self-interest	Philanthropic
Targeting	Poor people directly	Profitable market segments	Poor people indirectly (through market)
Approach	Project design	Process design	Process design
Notion of profit	“Profit is suspect”	Its maximization is the final goal	Important motivation factor of stakeholders
Notion of marketing	Manipulation of consumers and public	Essential to complete successfully in the market	Key to communicate product characteristics

Changing the perspective of “doing business”

In most cases, both farmers and enterprises would face excessively high risks and transaction costs if they attempt to rescue neglected crops by themselves. Publicly-funded R&D institutions concerned with farmers’ diversity and income thus face a new challenge: that of how to strategically engage farmers and enterprises in the research processes they develop. To do this efficiently, these institutions may need to re-think their traditional development strategies and redefine their role in the process of achieving market impact. Profit must be accepted as a strong motivation factor for both farmers and private enterprises. In this sense, enterprises are important partners to indirectly reach the desired development and conservation impact.



Implementing the marketing approach

In the implementation of such market approach, private enterprises are essential operators to reach the desired impact. However, to prevent misconceptions and distortions due to profit-centered behavior, private companies may have to stay back in the initial phases of the research process.

Public-funded R&D institutions must be very careful in choosing private partners. Donors and the public may perceive collaboration with private enterprises as something suspect because their primary role is to generate benefits for the public – and not to subsidize private companies.

Hence, R&D must be conscious of how indirect benefits for farmers are being generated through private enterprise development. In any case: **Let’s be transparent in why and how we deal with private companies!**

In this sense, we propose that R&D institutions not only conduct research on crop attribute discovery and product development, but also lead those activities that result in a preliminary but tested marketing concept for the developed product (see table next page). Market-



ing consultants can be hired to develop the scope for a strong demand-oriented focus from the beginning of a product development effort. Once research confirms good consumer acceptance of both the product per se and the marketing concept, the “marketing package” (marketing concept, brand name, information on processing and niche markets, contacts, etc.) can be handed over to the type of private enterprises that is most likely to produce the desired social impact.

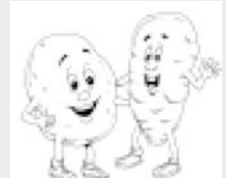
The selection of the enterprise(s) is based on transparent evaluation criteria. The transfer of a “marketing package” must be done under formal contract, where certain conditions are defined (e.g., dealing with farmers and commercialization of the product) to increase the probability that enterprises seek a triple-win impact, improving the situation for farmers, biodiversity, and themselves. Where an appropriate legal framework exists to enforce this contract, enterprises can be monitored for a needed period, before the R&D institution steps back to a sole conveyer role.



The International Potato Centre (CIP) is currently applying the marketing approach to two crops: native potatoes and yacon. Promising products derived from both crops were the starting point of the marketing approach. Consequently, marketing specialists were hired to elaborate a concept to improve the image and use of these underutilized small farmer crops.

In the case of native potatoes, CIP has conducted marketing research to target specific national niche markets. The marketing research results show that both the marketing concept and the product, colored potato chips, have a high consumer acceptance. It helps farmers generate income, while, at the same time, preserving agricultural biodiversity.

In the case of yacon, a strategic alliance was formed between CIP, the agricultural program of the Swiss Agency for Development and Cooperation in Peru (PyMAGROS), and the National Diabetic Association (ADJP). This alliance has helped to optimally assign responsibilities in the research process to guarantee high quality work (e.g., product research, economic feasibility studies, and supervision of consultants). Currently, the “transfer process” and ranking criteria are being defined with a private enterprise assistance fund to select the best-suited companies to be involved in launching in the local market the yacon extract.



Factors that increase the chance of success

Product development and marketing are a risky task. Hence, most important is to emphasize those factors that increase the probability of success.

Formal agreement between complementary R&D institutions from the beginning!

- ⇒ Importance to build up a critical mass of knowledge in different disciplines providing clarity about: (1) objectives and strategy; (2) roles, responsibilities and commitments (including funding); and (3) expected benefits (including property rights).

Coordination of product development and market related research capabilities!

- ⇒ Importance of teamwork to solve complex, interdisciplinary problems, and to effectively handle contracted specialized consultants.

9 Steps of the marketing approach	Key idea of each step
1. Discovery of promising crop attributes	⇒ To find “whys” for potential consumption and expansion of the crop
2. Development of a potential new product	⇒ To determine a way of consumption that is attractive and convenient for consumers
3. Analysis of the economic feasibility of the product	⇒ To make sure that production costs are not too high, thus making the product competitive
4. Elaboration of a sound marketing concept	⇒ To define optimal packaging and pricing to reach target consumers
5. Testing of the marketing concept with consumers	⇒ To fine-tune the concept and to measure real purchase interest/market size
6. Protection of brand name and concept	⇒ To prevent mis-appropriation and misuse of the marketing concept by entrepreneurs
7. Definition of criteria to select private enterprises	⇒ To justify the selection of enterprises that offer the highest likelihood of social impact
8. Transparent transfer of the ‘marketing package’ to private enterprises	⇒ To hand the business opportunity over to private enterprises (e.g., with a contract that enables the use of the brand under certain conditions)
9. Examination of enterprise behavior and social impact	⇒ To make sure that the enterprise reaches the target social impact

Process-based research and development activities!

- ⇒ Importance of acquiring (risk) funds whose use is rather flexible, in both research and development activities.

Protection of brand name and marketing concept!

- ⇒ Importance of having the legal ownership of a brand and concept to prevent misuse.

Effective supervision and support of selected enterprises!

- ⇒ Importance of collaborating early with Special-Enterprise Funds, that provide not only financial but also managerial support.



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