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CAFE Livelihoods Desk Review

prepared for

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by

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About the Desk Review
The CAFE Livelihoods Desk Review seeks to provide a brief external review of the project. It is based on project documentation including design documents, annual and final reports, promotional materials and blog posts. As such it seeks to provide the following: (a) a summary assessment of project outcomes and impacts; (b) a list of signature successes with an analysis of their importance; (c) a review of project shortcomings; and, (d) a list of recommendations for future work by CRS in the coffee sector.

It was commissioned and funded by Catholic Relief Services as part of the final evaluation of the CAFE Livelihoods project, and submitted to the project donor, the Howard G. Buffett Foundation, as an annex to the final report.

Background

Coffee farming represents the leading livelihood strategy for tens of thousands of smallholder farmers in Central America and Mexico. For many, however, coffee income is precarious. Prices are notoriously volatile. Yields are falling. Quality is failing to keep pace with the rising standards of the marketplace. Access to premium markets is limited. And production costs are on the rise, further squeezing the already narrow margins of smallholder farmers and compromising the mainstay of their fragile livelihoods.

Against this backdrop, the explosive growth of high-value coffee markets in the United States and Europe over the past decade represents an important market opportunity for smallholder farmers in Central America and Mexico to increase coffee income. Their ability to seize this opportunity, however, is constrained by poor production practices, limited capacity for post-harvest activities, weak farmer organizations and lack of access to essential services.

The Coffee Assistance For Enhanced Livelihoods (CAFE Livelihoods) project, a three-year initiative funded by the Howard G. Buffett Foundation (HGBF), was designed to improve the livelihoods of 7,100 smallholder coffee farmers in Mexico, Guatemala, El Salvador and Nicaragua by helping them deepen their engagement in high-value coffee markets. It included multiple and complementary interventions at strategic points along the coffee chain, and enlisted the technical assistance of Cooperative Coffees and Root Capital, sustainability leaders in smallholder coffee finance and marketing, respectively. The project began on 1 October 2008 and came to a close on 30 September 2011.

Summary assessment

CAFE Livelihoods is what is known as a value or supply chain project. A value chain approach (VCA) for development focuses on the linkages between all actors in the farm to market chain. When applied in a rigorous fashion, a VCA serves to identify the physical, geographical and human dimensions of a supply, processing and marketing system and assists in the identification of key issues and limitations. Through the connections established with the actors in the system, a VCA project then seeks to engage key members of the systems in processes of product and/or process upgrading that serve distinct objectives that can include everything from increases systemic efficiencies, new product development, traceability to the improvement of the social impact of the overall system. In the case of CAFE Livelihoods, a VCA was employed to upgrade the skills, infrastructure and capacities of smallholder coffee producers in the overall supply system with the end goal of increased incomes for these producers and their families.

The design of CAFE Livelihoods responded to an assessment of the overall supply chain for smallholder coffee producers in project target regions. As such, the project focused on a range of constraints starting with increasing production volume passing through improved post-harvest management and organizational strengthening and concluding with the facilitation of improved market linkages. Strategic objectives and indicators were clustered around production, post-harvest management and marketing. The effort and investment made in each area varied over the life of the project.

In addition to field-level activities by CRS and local partner agencies in Mexico, Guatemala, El Salvador and Nicaragua, the project also incorporated partnerships with specialized service providers Cooperative Coffees (on post harvest management and coffee quality) and Root Capital (on financial literacy and organizational strengthening).

The overall project design for CAFE Livelihoods is consistent with a supply chain upgrading project in which critical points in the supply chain are identified and targeted activities implemented to ameliorate existing deficiencies. This contrasts positively with most development projects which operate under a supply or value chain focus but invest most of their effort and resources at the farm-level on productivity enhancements. These push strategies often achieve impressive productivity gains but fail to become sustainable given the relative lack of attention to commercial aspects of the chain. While CAFE Livelihoods did make farm and farmer organization investments, these were balanced with commercial activities focused on building links to buyers and leveraging those links for the development of higher value products.

Appendix A shows project reported levels of achievement vis a vi the strategic objectives and the key indicators. Below a short summary of project results:

- The project achieved 85% of expected coverage in terms of farmers reached.
- In productivity gains, the project was successful in renovating coffee plantations with more than 5 million coffee seedlings planted, promoting the adoption of at least two crop management improvements and maintaining the number of farmers with organic certification. Despite these gains the project fell short of its goals in overall productivity gains – 89% of farmers for whom the project gathered data during all three years of the project achieved over 10% greater productivity – and in the promotion of organic production with currently non-certified farmers.
- In post-harvest management, the project succeeded in increasing farmer access to improved wet and dry milling facilities, in helping participant organizations meet their commercial commitments and in increasing the number of famers selling fully processed coffee. The project significantly exceeded its goals in terms of the number of organizations implementing coordinated post-harvest and transportation strategies which has a direct bearing on coffee quality. Despite these gains, the self-reported gains in cupping scores were far less than initial targets.
- In marketing, the project exceeded its targets in terms of the volume of coffee sold into specialty markets and as roasted coffee to national markets. Interestingly, these gains were achieved with slightly less than half the participating famer organizations. The remainder did not, according to project documentation, achieve specialty market linkages.

Based on the summary results several areas can be highlighted. First, the project applied a supply chain focus and was relatively successful in meeting total farmer and organizational coverage. This coverage was accompanied by notable gains in access to improved post-harvest infrastructure and organizational practices which contributed to successes in volume of coffee sold into specialty niches for a bit less than half the participating organizations. What explains the relatively focalized gains – in organizational terms – from what appears to be a solid supply chain upgrading strategy?

Two factors come to mind as possible hypothesis:

a) Environmental and biophysical diversity – coffee growing regions in Central America contain niches that are suitable for high quality specialty coffee as well as areas where the production of specialty coffee is difficult if not impossible due to biophysical and climatic conditions. Based on project documentation, it would seem that organizational selection criteria were focused more on existing relationships between CRS and the farmer organization rather than on the biophysical potential of the selected site to produce high value coffee. Under these conditions, an organizational could successfully implement all proposed activities and not achieve significant volumes of specialty coffee simply because it location and biophysical conditions are unfavorable. The level of heterogeneity present in coffee growing regions in Central America – due principally to microclimates and hilly / mountainous landscapes – is both an asset as well as a limitation. While the project did not assess the specialty potential of the regions it targeted based on environmental and biophysical diversity, it is possible that a large number of the partner organizations not able to achieve project specialty coffee production goals are located in areas where conditions are not conducive;

b) Organizational maturity – according to reports from Root Capital, the level of organizational capacity amongst participating farmer organizations varied significantly from one organization to another. Quality management and marketing is a knowledge-based activity which requires strong organizational capacities for analysis, knowledge management and coordination. Organizations that are unable to function effectively as businesses – as is the case for several participating organizations – could well be located in high quality environments and yet not achieve significant gains in terms of coffee quality despite project efforts. In contrast, organizations that are capable of better understanding what the diversity of local landscapes means in terms of coffee quality and how best to connect that diversity with a range of market actors may benefit disproportionally from project activities;

A secondary area of interest focuses on quality gains as measured by sales volumes of specialty coffee and cupping scores. CAFE Livelihoods reports significantly exceeding targets in terms of overall volume of coffee sold into specialty markets and yet, at the same time, disappointing results in terms of gains in cupping scores. This result seems counter-intuitive as increased sales into specialty markets imply that these coffees are meeting quality standards in a consistent fashion. Project documents explore this apparent discrepancy at length and conclude that the way CAFE Livelihoods measured cup quality – through samples gathered by project staff and sent to Cooperative Coffees for cupping – as a non-commercial, stand-alone process contributed to a lack of significant gains in cup quality. While it is difficult to assess the validity of this conclusion with existing documentation, it seems logical especially when the volume of coffee sold is taken into account. Clearly different ways of tracking cup quality within more commercial relationships are needed.

In addition, global coffee market conditions during the lifespan of the CAFE Livelihoods project further muddied the waters in regard to quality. Rising prices may have permitted coffees of relatively lesser quality to enter this market niche simply due to cost constraints for buyers. One way to test, and control, for this would be to look more closely at the price differentials that these coffees garnered. While prices differentials in general have decline with rising prices, evidence of such differentials, as in the case of the micro-lot developed by the 5 de junio cooperative, would serve to strengthen the case for successful quality gains. Unfortunately specific and consistent data on prices differentials is not included in the project documentation making assessment of this as supporting evidence of quality gains impossible.

Third, the marketing section of CAFE Livelihoods managed to establish improved trading relationships between several participating farmer organizations and buyers. These relationships are based on both intrinsic and symbolic coffee quality[1] and, in one case, the development of differentiated coffee

[1]. Intrinsic quality is measured by the cupping score using the Specialty Coffee Association of America 0-100 point scale. Also included in this category are coffees from specific origins which have recognized characteristics which differentiate them in the market. Symbolic quality is based on certification and/or traceability models that guarantee either the type of producer (small holders organized in cooperatives in the case of Fair Trade) or the

offerings for specific market niches. Project documentation on the dynamics of these relationships and the depth of the connections established is relatively slim. Given the relatively limited evidence, it is difficult to reasonably assess how sustained these relationships between buyers and farmer organizations are and how likely they are to continue following the project. Evidence provided indicates several positive developments, the most notable of which is the development of differentiated products tied to buyer demands, but does not provide enough detail to reach definitive conclusions in this regard.

While the project promoted both intrinsic and symbolic quality measures, gains achieved in both were substantially different. Taking the case of the differentiated product offering developed by the 5 de junio cooperative as an example of intrinsic quality, the return on investment from this small scale pilot was impressive with the final lot fetching the highest price of any of the coffees sold by any of the Coops in CAFE Livelihoods. This approach contrasts strongly with the well documented difficulties focused by the project in promoting symbolic quality measures in the form of organic production. As discussed below, some of the difficulties in promoting organic production relate to the issue of higher prices and the resulting reduction in the attractiveness of price premiums but the lack of a clear relationship with a buyer and non-financial incentives should also be considered. Intrinsic quality promotion in the specialty coffee market tends to be relationship based and intensive which, in conjunction with financial incentives, leads to multiple knowledge and price gains for farmers and buyers. Intrinsic quality-based product differentiation if matched with consumer demand seems relatively “defensible” in the marketplace and difficult to copy. Symbolic quality, on the other hand, is managed through third party certification agencies at arm’s length, based on traceability systems and, while incorporating financial incentives, much less personalized. Symbolic quality does not lead to a differentiated product in a strict sense but rather a product category where barriers to entry, while not insurmountable, are relatively easy to replicate (i.e. organic production or small farmer based coops).

The kinds of relationships and business models that emerge for intrinsic and symbolic differentiation differ substantially. Significant investments of time, trust and knowledge are needed to develop and maintain processes of intrinsic differentiation both from farmers as well as buyers. Relationships developed here provide benefits beyond coffee quality in the strict sense with particular gains seen in knowledge and knowledge management with spillovers for other producers and/or coffees that do not necessarily meet the specialty grade. In the case of symbolic quality, the system is not relationship based but rather traceability based with documentation and reporting substantially in the hands of one or more third parties. The final product – i.e. organic or Fair Trade coffee – is fungible. As a result, relations in this market segment tend to be more distant.

While the evidence contained in the CAFE Livelihoods documentation is insufficient to assess the quality of the relationships developed, there should be differences depending on the quality model used. In some cases, both intrinsic and symbolic differentiation was employed as a project strategy but it is not clear what the outcomes of this might be especially in the context of high prices and low differentials. This is relevant for project design in that some investments may be more profitable than others under such conditions. One could imagine a case whereby a Cooperative gains sufficient understanding of its biophysical and environmental potential and of diverse buyers and market demands to effectively employ an intrinsic quality standard for part of its coffee and a symbolic quality standard for other portions of its production. Some of the Coops in CAFE Livelihoods may evolve in this direction. Anecdotal evidence would suggest that some of their members already proceed in this fashion by reserving better

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production practices employed (organic, bird friendly, etc.). A range of certification schemes – Rainforest Alliance, Utz and others – seek to cover both producer type and production practices in a more holistic fashion.

quality coffee for quality-based markets while selling lower-quality into 'guaranteed' niches such as organic or Fair Trade.

Fourth, CAFE Livelihoods focused significant efforts on promoting organic coffee production in the region both in terms of maintaining currently certified organic farmers and in promoting organic production to additional famers. From a review of project documentation the rationale behind this strategic decision is not entirely clear. In several reports, it seemed as if the project was going against commercial incentives for farmers, especially in a market with rapidly increasing prices, by promoting an option that would only fully deliver benefits over the longer term. While a case can be made for organic production in terms of spill-over environmental and health benefits, the commercial case seems less clear-cut and even more so for the resource constrained small farm families at the heart of CAFE Livelihoods. From an external perspective, the focus on organic production remains puzzling and somewhat counterintuitive as a poverty reduction strategy.

Finally the commercial context in which CAFE Livelihoods was implemented remains critical to place project results in clear focus. As documented in project reports, coffee prices suffered a major run-up during the implementation of the project and this presented several challenges to defined strategies. First, rapidly rising prices provide clear incentives to farmers to increase volume. Quality becomes, at best, a secondary concern especially if the concept of specialty coffee is a relatively novel concept for participating farmers. Given the clear focus of CAFE Livelihoods on increasing both volume and quality the commercial context generated significant noise in the short-term. Second, in addition to the productivity push from rising prices, the gains achieved by the project in terms of access and use of wet and dry processing infrastructure were impressive. This seems to imply that participating farmer organizations were able to understand the need for both increased volume and increased quality as key negotiating factors in the marketplace. Investments in post-harvest infrastructure have a direct bearing on product quality and are therefore important both under current conditions as well as toward the future. Third, the success of the project in facilitating upward price renegotiation between buyers and farmer organizations is noteworthy. By showing farmers that consistent volume and quality sold via stronger relationships to specific buyers pays, the project effectively demonstrated that a volume plus quality approach is viable even in a high price environment.

This process contrasts with the previously mentioned focus on organic and Fair Trade certification. While sufficient data from CAFE Livelihoods is not available to make meaningful comparisons, it is interesting to note that the prices achieved through the development of differentiated products with buyers – i.e. the honeyed coffee lot – far exceed those achieved via certification. At the least, these results would seem to support that certification alone is not enough to maximize the value of small holder coffee and a more radical interpretation could be that it is better to invest in quality and product differentiation rather than certification. A more nuanced appreciation is that a final decision on strategy between certification and quality / product differentiation is best made based on the final selection of market channels and consumers. This relative trade-offs between certifications, productivity and quality investments remains an open debate in the coffee sector and is something that CRS might well wish to reflect on more critically in future coffee projects.

Signature successes

1. **Coffee renovation**
   CAFE Livelihoods showed significant success in promoting coffee renovation across the region. By the end of project, more than 5 million coffee bushes will have been planted. A conservative

estimate is that these coffee plants will produce an additional 28 million pounds of coffee over the next 10 years worth US$47.5 million dollars. To achieve these gains the project focused on the establishment of coffee nurseries in collaboration with farmer organizations. Through this work, farmer organizations should now be capable of continuing to renovate coffee plantations towards the future. This achievement is significant given that one of the major limitations of smallholder coffee famers is low productivity tied to old and unproductive coffee plants. By investing in improving the planting materials and agronomic practices of the poorest coffee farmers, CAFE Livelihoods has effectively increased the likelihood that they will benefit from improved prices.

From a market perspective, however, it would be important to understand what varietals of coffee were employed and how these combine with the previously mentioned biophysical and environmental variation to produce higher value coffee. Not all coffee varietals are the same in terms of yield and intrinsic quality. This is especially true for specialty markets which tend to place higher value on more traditional varietals rather than on more modern high yielding varieties. According to available project documentation, it is difficult to assess whether or not CAFE Livelihoods paid any specific attention to this issue.

2. **Infrastructure development and adoption**
The effective renovation and establishment of modern post harvest infrastructure constitutes a second signature success of the project. Gains from increased productivity can easily be lost through post harvest errors that negatively affect coffee quality. By providing investments to build localized infrastructure that is accessible to small holder coffee farmers, CAFE Livelihoods effectively dealt with a second major constraint for increased smallholder income: consistent quality. In addition to the provision of physical infrastructure (wet and dry processing facilities), the project succeeded in training farmer organizations in their use and showing that farmer-led processing can lead to important quality gains. Farm-level processing provides greater control over quality and opens the door to higher earnings for farmer associations as shown by the increased volumes of coffee sold into the specialty market. This achievement is significant because of the scale at which it was achieved as well as the fact that it targeted relatively smaller / weaker farmer organizations. In combination with improved planting materials and farm-level management, access to improved processing infrastructure can change the negotiation power of individual farmers and their associations.

3. **Organizational strengthening**
Project documentation highlights the need for investment and improvement not only in physical infrastructure, or hardware, but also in organizational practices and capacities, or software. In this regard the use of key external partners focused on financial management – Root Capital – and coffee quality management – Cooperative Coffees – constitute a signature success. In this area, CAFE Livelihoods facilitated specialized support for farmer organizations from these two specialized service providers. This is significant simply because it crowds in high-level knowledge and capacity development skills normally absent from most rural development projects. Specifically the use of Root Capital, despite the difficulties that this arrangement faced, seems useful given the relative administrative weakness of many of the participating farmer organizations. The role of Cooperative Coffee, though somewhat less visible in project documentation, was also critical in introducing the concept of market-driven quality parameters to farmer organizations who previously had limited exposure to final buyers, their needs and their knowledge. At the end of the day the coffee business is a knowledge intensive endeavor and the inclusion of specialty service providers to complement CRS field-level strengths in organizational development is a strongly positive aspect of the project.

Despite these impressive gains, it is difficult to assess the incentives in place to continue to implement the organizational capacity gains moving forward. A stronger focus on not only how to instill but also how to maintain organizational gains should be incorporated into future projects in this field.

4. **Commercial relationships**
   A clear focus on building commercial relationships between participating organizations and buyers is a fourth signature success. Too often rural development projects focus on productivity and quality gains with their backs toward the marketplace. CAFE Livelihoods broke that mold by effectively facilitating commercial engagement throughout its lifespan. Towards the future, this focus on commercial partners and trading relationships should be replicated in other coffee projects in a broader fashion. Positive spin-offs from this focus include greater access to market trends and knowledge, support on quality improvements and the identification of critical areas where improvements will mean increased income, the potential to develop higher value, differentiated products for specific market niches and increased overall farmer income.

5. **Differentiated products**
   A final signature success of CAFE Livelihoods is the development of differentiated products for specific market niches such as honeyed coffee and others. While this option is not always valid, for farmer organizations who do have potential for specialty coffee the capacity to understand what quality they have and how best to deploy that quality to gain maximum return on investment is key. In the case of CAFE Livelihoods this took the form of specialty product development. Towards the future, a more judicious use of localized cupping linked to commercial contacts mixed with geographic information tools could support a much broader process of product development for improved income. Knowing what coffee to sell to which client, in which form and at what price is critical for increased income. This focus should be deepened in future coffee projects.

Shortcomings

Despite the overall positive results recorded by CAFE Livelihoods there are several areas where the project did not achieve its goals.

First, as mentioned previously regarding volume of specialty coffee sold, the selection criteria for participating farmer associations was not clear. CAFE Livelihoods is a clear supply chain upgrading project and yet it included a range of partners that either had marginal interest in the project objectives or marginal capacity to become commercial actors in the way the project envisioned. A more transparent partner selection process to avoid inertia selection (we have always worked with X partner so we must continue to do so) would be a positive development in this kind of project. Towards the future selection of project partners for specialty coffee should be based on criteria such as: (a) organizational and farmer interest in the central activities of the project; (b) the commercial possibilities of the farmer associations selected to effectively participate in the coffee business or, failing this, their willingness to join in second or third level associations to achieve commercially consistent commercial volumes of production; and, (c) the location of farmers associations in geographical and environmental niches suitable for specialty coffee. Even using these somewhat stricter criteria, it should be feasible to identify farmer associations with high levels of unmet needs with whom to work. If CRS wishes to maintain a more straight-forward poverty reduction focus using coffee as a vehicle, this focus could be amplified to include areas with potential for commodity coffee production with whom a productivity-based approach would be appropriate.

Second, the insistence on organic and Fair Trade as key differentiation strategies may have led the project to discount other options. The limited evidence presented in project documentation seems to show greater return on investment from quality and product differentiation than from certification schemes but nonetheless the project continued to push options like organic production for reasons not entirely clear to the external observer. As mentioned earlier in this document, a decision to focus on intrinsic or symbolic product differentiation in coffee leads to diverse strategies and, eventually, market relationships. A key indicator to keep in mind here is price differentials. Market prices can and do fluctuate, often wildly as seen during the CAFE Livelihoods lifespan, so price differentials may be a better parameter with which to measure relative return on different investment strategies. A symbolic differentiation strategy such as Fair Trade or organic certification may well make sense during times of global overproduction and low prices as an insurance policy but loose relevance when core prices rise. It is critical to compare the premium received with the effort and costs required to maintain the certification scheme. What is important is to consistently track and compare the relative net returns from different strategies to decide what mix of strategies makes the most sense under what market conditions.

In reflecting on both the partner selection process and the continuing emphasis on organic and Fair Trade, it appears that CAFE Livelihoods may have fallen into the trap of path dependency. Once a decision has been made regarding partners or a differentiation strategy, it is difficult to shift. This kind of rigidity is counterproductive in market-facing projects which require flexibility to effectively react to changing market conditions and emerging opportunities. To avoid this trap, CRS may consider developing a menu of partners and potential strategies for future projects and employ a more flexible management strategy in both fields to better adapt to changing market conditions. It may well be necessary to shift strategies mid-project in the face of emerging opportunities and this should be anticipated in project design and management strategies.

Third, the project started with a relatively small commercial base. While the list of commercial contacts grew over the life of the project, starting with a broader base of commercial partners interested in different qualities and volumes might prove more useful in the future. Given the focus on both intrinsic and symbolic quality differentiation employed, a broader base of commercial contacts adequately representing both segments would have potentially made more sense. In future projects, a menu of commercial partners who respond to or represent diverse market segments and willingness to engage at origin would be recommendable.

Finally, the cupping quality model used in CAFE Livelihoods clearly needs reassessment. Towards the end of the project, the idea of using commercially embedded cupping as an indicator was floated. This seems a reasonable idea and one that should be tested in future coffee projects. In other projects this has been achieved by selecting a few key commercial partners who are (or will) buy coffee and having them conduct normal cupping assessments of coffee samples throughout the lifetime of the project. For more consistent grading, this process can be facilitated at origin with a fixed panel of cuppers drawn from commercial partners who visit origin for cupping of each harvest. Such an approach serves to provide a broader range of feedback and potential relationships to producer associations and better calibrate the quality of the resulting coffee to specific market segments. This approach may imply additional costs (normally to guarantee farmer participation over several days) but is useful for developing deeper discussions between farmers and buyers regarding ideas about quality.

To the credit of the CAFE Livelihoods team, many of the shortcomings identified here were addressed, certainly those relating to commercial partners and cupping standards, showing the learning capacity of the team. Perhaps the only issue that did not seem to receive much reflection was the focus on organic production. Project documentation focuses on how to keep organic farmers certified and how to get new farmers involved but it does not seriously question the validity of organic production as a value added strategy for small holder coffee producers with limited land at their disposal. With area as a major constraint, a strategy to maximize productivity and quality would seem more effective than organic yet that reflection does not seem to have happened within the project team. While documentation is lacking, it would seem that there was an ideological commitment to organic production rather than a more nuanced assessment of returns on investment for smallholder farmers.

Recommendations

Based on a review of the available documentation of the CAFE Livelihoods project, the following recommendations can be advanced:

1. **Continue to employ a supply or value chain focus for projects of this nature.** This focus allowed CAFE Livelihoods to intervene at multiple points along the chain where, traditionally, agencies like CRS have had limited participation. This is particularly important in the development of transparent commercial relations. In the future this focus should be accompanied by clear commercial selection criteria for project partners through which partners can be classified *ex ante* into different treatment groups based on biophysical, environmental and organizational conditions. This would assist in targeting differentiated forms of assistance to diverse partners. Once this is done, differentiated support strategies can be designed, tested and improved based on the specific needs of each treatment group. Under such an approach, a project could have strategies focused on supporting the development of intrinsic differentiation strategies for buyers and producer associations with the necessary conditions to participate in this market segment alongside strategies for symbolic differentiation strategies or simply increased productivity for commodity markets. Such an approach would allow greater flexibility and solutions better tailored to the specific opportunities and limitations of producers and buyers with the end goal of maximizing incomes for participating farm families.
2. In the area of commercial relationships, **the inclusion of a business model component in addition to the value chain focus would be recommendable.** A business model approach focuses on the specific relationship between a buyer or coop and the rest of the supply chain. This allows a much more detailed understanding of the implications of a specific commercial approach both at the firm level as well as the level of an intrinsic versus a symbolic quality model. Recent research has identified six factors that can be used to assess the inclusiveness of a given business model in terms of smallholder inclusion. Business models that are supportive of sustained small holder participation are those that tend to exhibit some degree of the following principles: (a) common commercial vision among partners; (b) the existence of effective social intermediaries that provide both commercial and developmental value; (c) clear governance structures through which rules governing quality standards, payment and risk management are shared; (d) access to financial and non-financial services to facilitate commercial activities; (e) processes of inclusive product or process innovation and sharing of resultant profits; and, (f) feedback loops that help all members of the business understand the effects of their actions on their commercial partners and manage problems before they threaten the entire system.
3. **Continue investments in productivity and quality enhancements specifically coffee renovation and access to improved post-harvest facilities.** While these investments should be complemented with knowledge-based networks (see following point) they do represent a critical step forward. In addition to physical infrastructure investments, future projects should assure that mechanisms are

in place to incentivize the continued use of this infrastructure in an adequate manner. While it is too early to tell how on-going use of the investments from CAFE Livelihoods will play out, building in a greater focus on incentives to sustain processes and contribute to an effective change in culture is important.

4. **Deepen the focus on quality through a wider range of commercial contacts** – perhaps a panel of commercial partners representing different quality niches – **linked to additional investment in farmer organization quality capacities**, such as cupping facilities, **to identify and assess the value of moving towards a differentiated product portfolio versus a homogenous product offering.** This knowledge network should also be used to identify the relative quality of different coffee cultivars in specific environmental and biophysical niches and under different production and post harvest management techniques. Cultivars that provide greater quality should be selected for future renovation projects. The end result of this process should be a regional knowledge network that effectively links all members of the chain around market-based quality parameters. This process complements the initial investments in post-harvest infrastructure and can assist in the emergence of more farmer associations more capable of extracting additional value from the markets.

   One example of how this works in practice is ASPROTIMANA in Timaná, Huila, Colombia. ASPROTIMANA started collaborating with Green Mountain Coffee Roasters on relatively simple issues of quality similar to those used in CAFE Livelihoods and through this process was able to train several members of their leadership in post-harvest and quality related topics including cupping. With this experience as a leverage point, ASPROTIMANA was able to diversify into higher value market niches with Allegro Coffee and Union Coffee Roasters. This engagement with Union Coffee Roasters led to a joint investment in a local cupping lab in Timaná and additional training. Today ASPROTIMANA successfully manages a range of commercial relationships in the specialty coffee segment, roasts coffee for local markets and is moving into coffee-based tourism. As such the association is functioning as an effective social intermediary providing both business value in the form of high quality coffees as well as local development in the form of market access, improved incomes and livelihood diversification.

5. **Continue to develop the financial and logistics management capacity of farmer organizations**, especially secondary or tertiary organizations. In addition to the quality knowledge base described in point 2, a critical aspect of success supply chain upgrading is organizational capacity. CAFE Livelihoods showed important advances with Root Capital in this regard but much remains to be done. Future coffee projects should incorporate this focus with the objective of building profitable farmer organizations capable of providing high quality services and sustained income gains to their members. Gaining a clear understanding about the diverse options for linking these organizations to commercial partners via business models (as discussed in point 2) is also recommended.

   One strategy to explore in this regard is the establishment of more collaborative arrangements between successful and emerging farmer organizations. In this sense, CRS could identify coffee grower associations that are further along in processes of managerial, financial and quality-based consolidation as sources of knowledge and support for relatively less consolidated enterprises and through the use of exchange visits, coaching and joint commercial ventures develop working relationships that help increase capacities. In many ways a pair-wise learning paradigm may well prove more effective than an extensionist based model. A corollary to this approach would be the facilitation of a greater number of buyer-producer association joint ventures with the goal being to increase the commercial knowledge and capacity of the farmer associations as well as the understanding of conditions (both potentials and limitations) by buyers. Both strategies share a more commercial focus which should contribute to greater sustainability over time.

6. **Promote additional processes of new product development** (i.e. honeyed coffee lot) **through cost-sharing with commercial partners to cover farmer exposure**. This was used in the honeyed coffee experiment in a positive way and is something that is worth expanding in future projects through the incorporation of innovation funds. These funds would be accessible to commercial partnerships between farmers and buyers to support innovation and experimentation in a low-risk fashion. The use of innovation funds would allow CRS to track the ROI of different processes of new product development as well as monitor the on-going commercial benefit (year-to-year) of these approaches in generating additional income for farmer associations and buyers.

   The development of skills for product and process innovation among commercial partners is of critical importance in the specialty coffee sector given the significant price differentials available for truly unique product offerings[2]. Currently most of the successful examples of new product development in the specialty coffee sector are with larger private farms rather than with smallholder associations. However, the land-tenure structure of smallholder famers and their associations may provide a greater potential for the development of one or more truly unique products for which commercial partners would be willing to pay a significant premium. As noted by Intelligentsia in the case of the Piendamó, Colombia incipient growers association:

   > This particular lot comes from a group of small-scale growers whose farms average about two hectares each. This year is the first in many that they've decided to collaborate as a group in the hopes of forming a lasting association for future harvests and benefiting from the many advantages that can come with being part of a collective. As part of the process they all agreed to follow similar quality control standards when wet milling and drying the coffees, and it seems the experiment worked—this coffee is delicious and should form the foundation for an enduring partnership for years to come (http://www.intelligentsiacoffee.com/sites/default/files/coffee-product-docs/product-doc/piendamo_colombia.pdf)

7. **Develop distinct cupping measurement standards embedded in commercial relationships to track coffee quality over time**. The need for consistent measures of product quality over time can be managed through the establishment of agreements with commercial partners to share cupping results from year to year. While not as controlled as having one cupping lab cup all samples, such a system can be established and calibrated to provide reasonably consistent results. CIAT established such as system in a previous project focused on spatial variation and product quality. In this case a panel of external cuppers from the US and Germany was combined with cuppers drawn from the Colombian Coffee Growers Federation. This mixed board of cuppers tested two samples of coffee from each farm (one processed on farm by the grower and one processed in a consistent fashion by CIAT in a mobile processing lab), scored them and compared notes. Interestingly enough the process

[2]. See for example http://www.intelligentsiacoffee.com/sites/default/files/coffee-product-docs/product-doc/santuario_microlot.pdf or http://www.intelligentsiacoffee.com/sites/default/files/coffee-product-docs/product-doc/Manantiales_Geisha_colombia.pdf. Smaller farmers and associations can also participate in these processes as can be seen in http://www.intelligentsiacoffee.com/sites/default/files/coffee-product-docs/product-doc/LaLoma.pdf and http://www.intelligentsiacoffee.com/sites/default/files/coffee-product-docs/product-doc/piendamo_colombia.pdf

showed that what external cuppers consider attributes in a coffee were often considered defects by national cuppers who were looking for a more homogenous cup.

Given the rapidly growing appreciation of coffee variability at origin by the specialty coffee segment in the US, Europe and Japan, finding a set of cuppers from commercial partners willing to spend time at origin and engage with farmers should be relatively straight-forward. A greater challenge perhaps is organizing the logistics for these origin visits in such a way as to maximize the information flows between farmers and buyers. The existing network of associations and coops established by the CAFE Livelihoods initiative should facilitate this. A more proactive combination of origin work with buyers and farmer associations is something that CRS should explore in future projects.