Many fortune 100 companies have said they will comply when the rules are finalized, and many are participating in the U.S. technical and advisory groups. Others are following the progress by means of newsletters, consultants, etc. When ISO 14,000 becomes a worldwide standard many firms should probably plan to meet it.

Bailey: GATT regulations will prohibit states from having independent standards. GATT will mirror the highest standards that are out there, being driven largely by EU. Management systems regulations, especially environmental, might quickly become technical trade barriers. This could be a major problem for lesser developed countries.

Organic Certification - Purpose, Description, Status, Possible Effects - - Hal Ricker and Grace Gershuny, USDA/AMS

Hal Ricker:

The organic industry was mainly a private certification industry for over 20 years. The ALAR scare (with apples) created interest in mainstream marketing of organic products, but quality was not ready. Since then markets have developed, but there were lots of certifiers following different standards. There was initial hope for a voluntary standard, but states began to intervene with organic labeling laws. Now about half the states have them, and about 15 have organic certification programs. There are about 30 to 35 private certification companies in the U.S. today.

In the mid 1980s, there was lobbying for a federal standard, and Senator Leahy sought to include it in a Farm Bill. USDA opposed this because it would be costly and onerous, and they had not participated in development of the statute. Organics legislation was finally passed in the 1990 Farm Bill, but no funds were appropriated for its implementation until FY 1994.

A committee was formed to advise the Secretary of Agriculture on how to implement the new national standards. In the meanwhile the industry has grown significantly. In California, anyone selling products must register with the state department of agriculture. Most registrants are very small operators. Sales of organics are projected to increase 23% per year for the next 5 years.

What does organic mean? Fraud and mislabeling are emerging. The purpose of the law is to create one consistent national standard for "organic," to facilitate inter-state trade. The National Organic Standards Board, with representatives of the private sector producer, consumer and environmental groups, has had eleven meetings in the past three years. It has developed recommendations for the program and materials that can be used in organic production and has advised on implementation of the law.

In the summer of 1994, the Board provided recommendations for most aspects of the program, and since then USDA has been working on proposed rules. These relate to accreditation of state and private certifying agents as well as to production and processing standards. To be certified a firm will need an Organic Farm or Handling Plan, which is really a management plan. There will be parallels with ISO 14,000 such as standards for emergency spraying, chemical drift, livestock health and welfare, etc.

Internationally, the CODEX Alimentarius organic labeling committee has been influenced by the U.S. organic certification legislation. There will probably be significant progress next May, in close coordination with the EU which has a law in place. Costa Rica is moving forward, and Japan is interested in some sort of government standard.

At present you can label a product organic if you follow a recognized certifier's program, even if the certifier is from a different country. Often a U.S. company will do certification for producers in other countries, particularly of coffee.

Grace Gershuny:

Evaluation of management systems and quality of the process is key, much like ISO 9000 and 14,000. They are parallel movements. A new level of professionalism in organic certification is emerging.

Certification is verification via an independent agent that a producer or manufacturer has met the organic standard. Of the 44 or so current certifiers some are inactive, a few are likely to drop out, and others will seek to become accredited. There will be accreditation fees and this will be a source of debate. Interested private sector groups range from small, grassroots organizations like those we might find in the Caribbean or overseas (i.e. committed but not very professional) to large, bureaucratized entities. USDA will need to accredit both.

Assuming producers meet the standards, and producers have participated in their design, the process begins with a written application describing their practices, inputs, products, field history, etc. There is also an organic plan that includes the ideas of continual improvement and monitoring of problem areas. Inspectors will visit the premises of certification applicants. A certifier will evaluate all information including the inspector's report. A key aspect is the audit trail and producer record keeping, or chain of control for product integrity. Many certifiers offer technical information via educational programs.

A recent book by the World Resources Institute has a section on organic production. There are now state-sponsored organic entities in many countries, like Costa Rica and Argentina. There is legislation in Uruguay. Also, there is a high level of activity of U.S. and EU certifiers in the region, especially for chocolate and sugar for the high growth organic junk food market. Increasingly there is an environmentally concerned middle class, for example in Jamaica. Still, there has been little opportunity for the environmental and business communities to discuss development and international trade.

Q&A Session on Organics

Ricker: Simply not using pesticides is not the same as organic production, and neither is cultivation by neglect. Certification implies a farm management approach, not just a farm too poor to use fertilizer.

In farm management, soil is tested for nutrients and residues. Where residual contamination from years ago remains on some U.S. farms, farmers can plant crops that won't absorb it from the

soil. Also there are needs to replace nutrients via rotation and proper tillage, without using chemicals. For pasture, rotation works well to keep it healthy. Composting is another way to improve the land. There were 264 new products introduced last year as organic.

Gershuny: The farmer needs a positive plan of improvement in all aspects, not just the harvest. Producers of botanicals are looking for the organic label and are a fast growing segment, along with food concentrates, sugar and coffee. It is a growth industry.

Ricker: We are working closely with CODEX for an international rule, rather than using a location-specific approach. The goal is to have equivalency of certification with other countries.

Bailey: LAC TECH has provided lots of information on groups able to certify, and CLUSA in El Salvador has done work in this area. Unfortunately many products are fumigated at the port of entry, and there goes the organic status. This happens a lot with cocoa, which has numerous pests, and also with spices. This issue is seldom recognized.

Forest Products Certification, Purpose, Description, Status, Possible Effects - Michael Hanrahan and Alicia Grimes, LAC TECH/USDA

Alicia Grimes:

Certification requires a management system that adheres to social, ecological and economic criteria and standards. The idea arose when environmentalists and consumers realized that bans on trade in tropical products were not reducing deforestation. Green labeling was an idea to involve consumers. Participants in the UNCTAD conference in Rio de Janeiro last year pledged to try to work toward certification programs, with a goal of sustainable management by the year 2000. The base position is that ***fewer than 1% of forests are sustainably managed.***

Discussions of criteria for sustainable management have passionate stakeholders in industry, indigenous groups, recreation clubs, etc. International donors and NGOs are also involved in defining sustainable forest management. Social, ecological and economic questions must be taken into account.

The emphasis now is on timber certification because most of the talk concerns wood and wood products. Certification of timber is certification of a forest management system, with labeling that tells consumers how the product was produced. Certification of non-timber products is also being discussed.

Methods of timber certification vary enormously. There are now no universally accepted indicators for sustainable forestry. Parallel efforts to develop standards are under way; the following are examples:

International Tropical Timber Organization - forest management guidelines
Canadian Forest Industry (considered with ISO 14,000 via technical committee 407)
American Forest & Paper Association, (a U.S. industry group)

Government of Indonesia - an initiative to develop criteria for national use
Helsinki Process - criteria for European forests
Montreal Process - non-European temperate and boreal forests including Russia, New Zealand, U.S., etc.
Tarapoto Proposal (Amazon Cooperative Treaty)
Central American Commission on Environment and Development, Council of Forests and Protected Areas
Forest Stewardship Council, a non-profit membership organization for sustainable forest management. It seeks to establish general principles and criteria and to accredit independent certifying organizations. It involves tenure rules and management plans and maintains contact with USAID.
Certifying organizations like the Rainforest Alliance.

As the list above indicates, this is a complex, contentious, competitive area.

Mike Hanrahan:

Alicia Grimes and I are involved in an ongoing project with cost-benefit and impact analysis. It is a comparative analysis of certified vs. non-certified management under the BOLFOR project in Bolivia.

A project goal is forest management to maintain bio-diversity, etc., as included in the Foreign Assistance Act and USAID policy. The strategy is to use certified forest management. An objective is to provide tools for ecologically and economically sound certified forest management.

A major question is whether it makes economic sense to insist on certification. There are two main costs. The first is to be certified, for which the applicant must pay for travel to the site and a review and preparation of a report and then for periodic audits. The second is managing the forest in a sustainable way. This means using non-destructive ways of harvesting trees, delayed harvests, having and following a forest management plan, etc. Delaying harvests has an economic cost of not getting all revenue up front.

A large question is the nature of the market for certified forest products. Is there any difference in price for the green label? If so, how much? Finally, we wish to look at variety of options vs. the traditional way and predict what might happen.

We want to determine under what circumstances certification might be economically viable. For example, if small and medium producers get certificated, they may be able to sell to niche markets. This analysis might indicate interventions in marketing, technology transfer, technical assistance, credit, etc. that would be useful.

We don't know yet if timber certification will have any impact on trade in forest products. If certification takes off, the small guys are likely to be at a disadvantage. Then this will be a ripe area for donor intervention, along with credit.

Gershuny: There is contention and acrimony in forest product certification, as in organic certification. You can lower costs of certification by training local inspectors; the Independent Organic Inspectors Association has many LAC members and there is also overlap. For example, non-timber products will have organic labels in many cases.

Hanrahan: There is a question of how to include offsite benefits, as to the community and the world. Discussion of these benefits is warranted, but they are hard to quantify. "Subsidy" is a nasty word these days, and there are not likely to be subsidies to make forests more economically viable. Also there is a strong desire to make it an entirely private sector idea; however, help in marketing, technical assistance and credit would be useful.

Lampman: The forest owners themselves should pay for the management because donors lose interest over time.

Kraljevic: It's not clear how to cover the added costs of certification. Commercial management is ongoing in part of the forest, with a technical forestry management plan translated into local terms so the community can understand and manage the operation. Technical assistance must focus on this type of action. Also forest owners can see if they are making money, unlike with prior technical assistance from NGOs, when they couldn't tell how they were doing financially.

Carter: Plan Sierra in the Dominican Republic was looking at subsidies. There are lots of up front costs, but they are nominal over the life of a project. Access to capital is crucial. Management plans are like a lifetime CD with a substantial penalty for early withdrawal. Poor people like liquidity, not constraints as in forestry. Can they afford to ride it out and hold to the plan? Often the answer is "no". Sustainable forestry is too long term to be useful for the poor.

In Plan Sierra, there are other financial instruments to maintain incentives and let the poor cash out early? Plan Sierra allowed withdrawal in years 5, 10, 15, etc., to give its participants choices, but this is probably not a good solution. Even if the benefit-cost ratio is OK, it may not be sufficient over the life of a project.

Lampman: The Carter analogy may hold on a global scale, but you have to free up some capital initially to put management systems in place.

Kraljevic: Land rights and tenure, and conflicts over ownership are perhaps the most important issues in the BOLFOR project.

Phaseout of Methyl Bromide and Its Likely Effects - - Robert Bailey, LAC TECH

Agricultural trade will be profoundly affected by the phaseout of methyl bromide (MB). There are significant differences between the U.S. Clean Air Act (CAA) and the United Nations Environmental Program (UNEP) approach to phasing out MB, which create a potential trade barrier. The UNEP provides an essential use clause for quarantine purposes, freezes production of MB in 1995 at the 1991 level, permits reduction in production rather than total elimination under international regulations, and extends the phase out period by an additional ten years for developing countries.

The Clean Air Act's (CAA) rigid phase out policy for Methyl Bromide in the U.S. does not consider the relative costs and benefits involved in the elimination of MB, and there is no "essential use" exemption clause for quarantine purposes. The loss of MB for quarantine purposes will significantly affect U.S. agricultural exports, interstate trade and the importation of both food and nonfood items into the U.S. It will place U.S. producers and exporters at a disadvantage in competing in both international and domestic markets.

The UNEP will meet again the end of 1995 to review any new scientific data. At that time the EPA will focus on trying to convince UNEP member countries to harmonize the UNEP with the CAA protocol, so there will be a unified resolution on the phase out of MB to ensure a level playing field worldwide. The EPA has also stated that they will not ban the entry of any product treated with MB offshore, as it will not fall under the CAA. If no alternative can be found in time, the EPA will consider establishing an "essential use" clause for quarantine purposes.

The rapid growth of the nontraditional agricultural export industry worldwide has resulted in an increase in fumigations at U.S. ports of entry by 13.6 percent over four years. This increase includes products infested with quarantine pests as well as products imported with MB treatment as a condition of entry. In 1994 there were 6,286 fumigations, using 379,856.25 pounds of MB.

Post harvest and quarantine alternatives will depend upon the commodity. Durables, such as tobacco, bulk grain and cotton, have alternative chemicals such as Phosphine and Chloropicrin. However, in the case of perishables such as fresh fruit, vegetables and cut flowers, no such chemical fumigant exists.

The alternatives for MB must be cost effective on a commercial scale. Any viable alternative must have a reasonable cost benefit ratio before anyone invests in a commercial facility. Some of the chemical and nonchemical alternatives that are being considered are pesticide dips, phosphine, controlled atmosphere, vapor heat, hot water dip, forced hot air, irradiation, cold treatment, recovery and recycle systems, genetic engineering, cultivar resistance, system approach, pest free zones, export certification, and preclearance inspection. Very few of these are, however, commercially viable at this time.

Alternatives in the U.S. are forthcoming at a torpid pace due to inadequate funding, a slow regulatory approval process, and the high cost and limited application of potential alternatives. The time frame for the EPA to approve an effective alternative, until the year 2001 or approximately five crop seasons, is probably too short.

Alternative treatment research has its priorities, and the primary focus will be on U.S. exports. Research on alternatives is non-existent in developing countries. The USDA will have to review and change its policy and establish an acceptable safeguard protocol if treatment is to be permitted at facilities in controversial areas/states. In the past, APHIS has not permitted any fruit fly host material to move through Florida or California.

Some of the non-chemical approaches to quarantine treatment often require extremely lengthy treatment times, as in the case of cold treatment. Non chemical approaches will have specific, limited application. Certain types of treatments, such as hot water dip, will have to be conducted in the exporting country under a USDA APHIS preclearance program.

Systems approaches and free zones both require a certain level of institutional capability in the exporting country. If such approaches are taken, technology transfer and major training efforts will be needed to develop the capacity to implement them. When MB is phased out in the U.S., commodities that require fumigation as a condition of entry will have to be treated offshore. This will require the establishment of many additional preclearance programs by the USDA. If the demand for preclearance programs goes up, the USDA may not be able to supply the needed personnel. Refusing preclearance due to a lack of trained personnel may be considered a non-tariff barrier to trade, by the international community.

The U.S. approach to phasing out MB will put U.S. producers, importers, and exporters of agricultural commodities at a serious disadvantage in a highly competitive world market. U.S. producers of winter fruits and vegetables have long complained that Mexico has a distinct edge in competing in the U.S. Mexico is considered a developing country by the United Nations and will not only have the quarantine exemption but may get the additional ten year phase out for pre-plant use. The Clean Air Act phase-out policy of MB will further incite U.S. producers to move production offshore.

It is unlikely that the U.S. will have enough commercial alternative treatment facilities in place by the 2001 deadline. A plausible scenario is that more U.S. producers will move production operations offshore to take advantage of the UNEP program exemptions and delayed phase out. Foreign exporters may begin to trans-ship through Mexico so that if pest problems arise, infested cargo can be returned to Mexico for MB treatment right at the border and shipped back over the same day.

Countries desiring export certification programs will increasingly request training and technical assistance from the U.S. The USDA can not provide export certification training at this time. Preclearance programs will have to be established for all commodities requiring MB treatment as a condition of entry, which will seriously drain the finite manpower of APHIS. If the U.S. cannot provide these services it may be accused of erecting technical and phytosanitary barriers to trade.

Discussion of Likely Effects - - Michael Carter, Land Tenure Center

We have heard a lot of topics from a lot of people. Since this is no one's particular domain, let's try to sketch out where we are. Taking a minute to organize our thinking will help us answer John Becker's three questions and respond to the question of what USAID should do.

We've seen that there are two types of regulations on product characteristic and on process characteristics. Are there differences in the economics of information for these types?

Also, it appears that there are three levels of questions with corresponding levels of interventions:

1. Three kinds of institutions can perhaps generate signals of information: (1) government, (2) NGOs like ISO, and (3) private firms. There is complex interaction among these. With regard to USDA, for example, should ISO 9000 cover livestock even though the private sector isn't interested? If it does, markets will change and so will allocation of land, labor and capital.

2. The costs of product and process certification are huge. Unless we can resolve this for small producers, they will have a big problem. We heard about contract farming, cooperatives, etc. We also heard about Frito Lay's success, but each buyer of agricultural products has its own kinds of problems. How can small producers work together to keep with the program? What about farmers who enter into a cooperative or contract farming but then sell in the spot market?

3. In organic coffee or forestry, for example, lack of liquidity and other factors put small farmers at a disadvantage and can result in loss of market access.

Bailey: USAID could support CODEX to promote participation by countries. Second, it could encourage focus on inter-regional and local markets, rather than expensive markets like the US or Japan. This could be useful for scale producers.

Hendrix: Do new rules create a situation of quality market vs. dumping, with deteriorating terms of trade? The dream of NTAE's was to create more middle class, two hectare farmers. Is this dream over?

Bailey: Perhaps we haven't paid enough attention to local markets, which have lower risk.

Stanley: With NAFTA, will other LDC's adopt the higher U.S. standard and impose them on other countries exporting to them?

Weiss: Not always. For example, if Chile, joins NAFTA its imports from Bolivia will be affected little if at all.

Bailey: The worry is more about HACCP than ISO. ISO has not had a good reception In the market because it is too burdensome. Traditional standards of control are adopted rather than ISO 9000 because they are less expensive.

Carter: Perhaps, these are instances where nothing active needs to be done at level 1. Perhaps it is enough for a subset of producers to get certified. Interventions should be considered at all 3 levels. In Chile, the lack of interventions at levels 2 and 3 has lead to changes in land and labor and to the disadvantage of small holders. Small scale farmers never got into the export market.

Discussion of USAID Interventions - - Pamela Stanbury, USAID

With all this new information, imagine what it is like for small producers In LDC's! These issues of smaller producers may fit very well with USAID. This session is a wish list of what we could actually do, but we need to prioritize needs.

Some issues to be dealt with are the following:

> Where to target policy/institutional interventions? How should we work with government, NGOs and the private sector? What are the impacts of standards on different types of producers in LDC's? What are the implications of standards on regional trade (south/south)? What methodologies can be used to do cost-benefit analysis of certification (example - forest products discussion)?
>
> How can we reduce fixed costs to small producers through cooperatives, credit access, etc.)? Should we provide training in new standards and how to meet them or in record keeping and data management?
>
> Should we support CODEX and a voice in it for LDC's? What coordination is needed among agencies in the U.S? How can we strengthen LDC capacity and organizational structure to meet high standards?

Stathacos: Trade associations are important for training. Technical committees can consult the associations too. This was important in Madagascar.

Weiss: All of these new procedures will impact farmers. Money to help is scarce but may be available from some donors. Training may be the most cost-effective intervention. USAID, IDB or other donors must decide which intermediaries should provide the training.

Carter: In Guatemala there's been some restructuring of industry followed by efforts to implement new procedures. Two groups emerged - good exporters and bad ones. The good ones stopped buying from the small farmers because of the need for more direct supervision. They didn't contract with anyone with less than four or five "manzanas" in production. There may have been alternatives like a trade association or cooperative to supply the supervision and guarantee quality via a local agronomist.

Stanley: Small producers are now on their own in Honduras, and large producers are forming groups. Trade associations may benefit only a certain class, resulting in stratification of information availability.

Stanbury: This notion of differential access to information is especially important. USAID can expand access by getting involved.

Weiss: In Central America, PROEXAG died and CINDE has become weaker. Some commodity associations have become stronger. A whole lot of information is available on the Internet, but how does small farmer get access to it?

Stathacos: Trade Associations could do this on a fee basis. USAID does not want to invest in recurrent costs of information but can help on a one-time basis.

Carter: The two sides to this are knowing what to do, and then doing it. For example, pesticide use is a problem. We can't sample every small producer due to cost, and it's hard to create incentives for farmers to follow the rules. As a result, exporters have cut out the small guy and restructured the industry.

Becker: With the micro enterprise project with ACCION we've seen that small enterprises are willing to discount the rate of return, but they want safety, which is where USAID is helping. US investors can seek progressive opportunities with a lower but steady return.

Conclusions - - Ken Weiss

We have focused here on new quality assurance systems and procedures, with the ultimate goal of making suggestions to USAID and other donors. Our challenge now will be to take the conference proceedings and see how we can use them to improve the lot of small farmers and agribusinesses in the LAC region.