

表 6-1 新規卸売市場の市場運営規則案

| Item of rules/regulations | Contents of the proposed rules/regulations |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Organization | |
| Management Committee | Establishment of Management Committee composed of the representatives of wholesalers associations, associate members (retailer, transporter) and observers (Prefecture and Municipal Government). |
| Management Body | Establishment of Management Body under Management Committee. Management Body is in charge of operation/Maintenance under the supervisor of Municipal Government. |
| Users Organizations | Users organizations (wholesalers, retailers, transporters and producers associations) undertake operation/maintenance under the instruction of Management Body. |
| 2. Management | |
| • Kind of commodities | Fruits and Vegetables and fresh product |
| • Qualification and registration of users | Qualification of the wholesalers: trading and financial capacity, experience of wholesale activity, management capability, wholesale activity |
| • Transaction system | <ul style="list-style-type: none"> • Direct negotiation and consignment • Daily payment by cash after delivery • Prohibition of transaction among wholesalers |
| • Tariff (fee) | <ul style="list-style-type: none"> • Rental charge of sales section • Entrance and parking charge of vehicles by capacity |
| • Operating days and hours | <ul style="list-style-type: none"> • Operating hours for wholesale market <ul style="list-style-type: none"> For wholesale activity: 7 a.m. ~ 1 p.m. For cleaning: 1 p.m. ~ 6 p.m. For entering and unloading of trucks: 6 p.m. ~ 7 a.m. • Operation hours for farmers market <ul style="list-style-type: none"> Hours: 2 p.m. ~ 5 p.m. Days: Two days per week |
| • Standard of product packing | Standard of packing: Sack, box basket and pack by product |
| • Collection/Publication of marketing information | Collection of informations on price and volume of fruits and vegetables everyday and publication by newspaper and radio. |
| • Monitoring of utilization of selling section | Monitoring on utilization efficiency of sales section. Loss of qualification by low efficiency of utilization through monitoring |
| • Utilization of facilities | Rule of utilization of facilities |
| • Prohibition/Penalties | |
| 3. Operation/Maintenance | |
| • Security control | |
| • Price/weight control | |
| • Control of entering, circulating and parking of vehicle | |
| • Mediation of conflict | |
| • Sanitary control | |
| • Gabage collection | |

Source: (1) Law/Regulation - Law/Regulation on Wholesale Market in Japan, Brazil and Germany
 - Regulation on Abasto Market in Bolivia.

(2) Field Survey of Phase I of Feasibility Study for the Improvement of Agricultural Marketing System in Santa Cruz, Bolivia, 1998

表 6-2 新規卸売市場の運営母体に関する三つのオプションの特徴

| I. Contents of the Project | Option 1 Local Gov. | Option 2 Public Corporation | Option 3 Private Sector |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Acquisition of the Land | S.C. Municipal Gov. acquires the land | S.C. Municipal Gov. acquires the land | S.C. Municipal Gov. acquires the land |
| 2. Construction Stage (Fund & Construction) | | | |
| (1) Implementation Agency | S.C. Municipal Gov. is burdened the construction fund. Prefecture Gov. gives technical/financial assistance for Municipal Gov. | S.C. Prefecture, Municipal Gov. and User's jointly invest and establish the public corporation | Users establish the organization (wholesale company) and provide the fund. S.C. Prefecture and Municipal Gov. support the users organization to provide the fund because the market has a public function. |
| (2) Basic Infrastructure | S.C. Prefecture & Municipal Gov. construct by their own or public fund. | Public Corporation constructs by provided fund. | S.C. Prefecture & Municipal Gov. construct. |
| (3) Common Facilities | S.C. Prefecture & Municipal Gov. construct by their own or public fund. | Public Corporation constructs by provided fund. | Construction is done by Users Organization, Prefecture & Municipal Gov. Support provision of fund. |
| (4) Users Facilities | S.C. Municipal Gov. construct the facilities and rent/sell to users in order to recover the investment | Public Corporation construct the facilities and rent/sell to users. | Users constructs the facilities |
| (5) Common equipment (Fork Lift, Computers etc.) | S.C. Municipal Gov. Purchases the equipment and rent/sell to users in order to recover the investment. | Public Corporation purchases and rent/sell to users. | Wholesale Company purchases. |
| (6) Private Owned Equipment | Users are burdened. | Users are burdened. | Individual Users are burdened. |
| 3. Management/Operation Stage (Fund and Operation) | | | |
| (1) Implementation Agency | S.C. Municipal Gov. has responsibility for Management/Operation. Actually Management Committee manages and operates the market under the supervision of Municipal Gov. | Public Corporation establishes the Board of Directors. The Board of Director has responsibility for Management/Operation. | Private Users Organization is established through the legal procedure. (Wholesale Company based upon cooperative law or commercial law). |
| (2) Management System | Management Committee monitors and inspects the operational conditions, and instructs to improve the management/operation if necessary | Board of Director monitors the operational conditions every year and audits the financial conditions. | Board of directors composed of members of company monitors and secures soundness of the business. (Profitability, fairness) |

Source: Field survey of Feasibility study for the Improvement of Agricultural Marketing System in Santa Cruz, Bolivia, 1998.

表 6-3 新規卸売市場の運営母体に関する三つのオプションの評価

| | Option 1 Municipal GOV. | Option 2 Public Corporation | Option 3 Private Sector |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Construction | | | |
| (1) Provision of fund | Prefecture and Municipal GOV. can provide fund from their own capital or domestic and international sources. | Prefecture and Municipal GOV. can provide fund from their own capital or domestic and international sources. | Municipal GOV. Prepares the premise and infrastructure. Small-scale traders have not their own capital and it's difficult to get loan from City bank. |
| (2) Repayment of fund | Municipal GOV. bears the depreciation cost. Users only pay the management/ operation cost. | Users have pay depreciation cost and interest. | Users are burdened by depreciation cost and high interest. |
| (3) Supervision during construction | Municipal GOV. has competent engineers. | Public corporation have to employ engineer | Private sector has to employ engineer. |
| 2. Management/Operation | | | |
| (1) Set-up management/operation system | Municipal GOV. has many project and experiences to set-up management system. | It is difficult to collect competent persons. | It takes a long time to unify many users organization and set-up one organization. |
| (2) Competent of management/operation | Initiative of management by public agencies is limited because it has possibility to be under the political influence. | There are possibilities to exclude small-scale producers and traders except member of corporation. | Private sector has not competent to mediate conflict among users' organizations |
| (3) Provision of operation fund | Municipal GOV. can collect rental fee of sections as a part of operational fund and cover the deficit in case of red figure. | There is a possibility to be unable to repay loan. | There is a possibility to be unable to repay loan. |
| (4) Securing talents | Municipal GOV. has many talents except commercial business. | Securing talent from private sector is difficult. | Securing talent from private sector is difficult. |
| (5) Efficiency of management/operation | Government officer has not competent on commercial business. | Public corporation can employ a talent on commercial business. | Efficiency of management/ operation is low if there is no cooperation among users' organizations. |
| (6) Securing equality of use | Conditions same as Abasto Market under CRAMA will be taken place in the New Wholesale Market. Wholesale function in the New Wholesale Market will be lost. | There is a possibility of monopolization by Board of Director. | It is possible to exclude the persons without member of users' organizations. |
| (7) Promotion of marketing industries | It is difficult to promote private wholesalers' organization. | There is a possibility that public corporation oppress private sectors. | Users can operate business unrestricted under unified organization. |
| 3. Environmental control | It is no problem if rules/ regulations on sanitary control and garbage treatment will be followed. | It is no problem if rules/ regulations on sanitary control and garbage treatment will be followed under one organization. | It is no problem if rules/ regulations on sanitary control and garbage treatment will be followed under one organization. |

Source: Field survey of Feasibility study for the Improvement of Agricultural Marketing System in Santa Cruz, Bolivia, 1998.

表 6-4 新規卸売市場の運営・維持管理体制案

| | Municipal Government | Management Committee and Body | Users Organization |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------------|--------------------------------------------------|
| (1) Management System | | | |
| a. Basic Infrastructure | O/M and rehabilitation by Municipal GOV. | Request rehabilitation for Municipal GOV. | Request rehabilitation for Management Committee. |
| b. Common Facilities | O/M and rehabilitation by Municipal GOV. | Request rehabilitation for Municipal GOV. | Request rehabilitation for Management Committee. |
| c. Users Facilities | O/M and rehabilitation by Municipal GOV. | Request rehabilitation for Municipal GOV. | Request rehabilitation for Management Committee. |
| d. Common Equipment | O/M and rehabilitation by Municipal GOV. | Request rehabilitation for Municipal GOV. | Request rehabilitation for Management Committee. |
| e. Private Owned Equipment | - | - | Users conduct O/M. |
| (2) Operation/Maintenance System | | | |
| 1) Product traded (target product are fruits/vegetables. However, there is a possibility to trade other product.) | Supervision by Municipal GOV. | Decision by Management Committee. | Request for Management Committee. |
| 2) Qualification and registration of users | Supervision by Municipal GOV. | Judgement of qualification. | - |
| 3) Transaction System (Face to Face transaction, cash payment at the same day, Prohibition of trade between wholesalers) | Supervision by Municipal GOV. | Decision by Management Committee. | Operation and execution. |
| 4) Tariff System | Supervision and collection tariff by Municipal GOV. | Decision by Management Committee. | Request of revision of tariff. |
| 5) Operational Days and Times | Supervision by Municipal GOV. | Decision by Management Committee. | Request of revision by users organization. |
| 6) Standard of Packing | Supervision by Municipal GOV. | Decision by Management Committee. | Request of revision by users organization. |
| 7) Collection and Publishing of Marketing Information | Supervision by Municipal GOV. | Collection and Publishing by Management Committee. | Obligation of provision of information. |
| 8) Monitoring the Utilization of Sales sections | Supervision by Municipal GOV. | Monitoring by Management Committee. | Obligation of efficient utilization. |
| 9) Rules of Utilization of Facilities | Supervision by Municipal GOV. | Monitoring of implementation of rules. | Obligation of implementation of rules. |
| 10)Penalty | Supervision by Municipal GOV. | Implementation | Prevention of Violation. |
| 11)Security Control | Supervision by Municipal GOV. | Implementation | Obligation of Cooperation. |
| 12)Price and Weight Control | Supervision by Municipal GOV. | Monitoring | Implementation |
| 13)Control of Vehicles Circulating inside the Market | Supervision by Municipal GOV. | Implementation | Obligation of Cooperation. |
| 14)Mediation of Dispute | Supervision by Municipal GOV. | Mediation of dispute between users organizations. | Mediation of dispute between members. |
| 15)Sanitary Control and Garbage Disposal | Supervision by Municipal GOV. | Implementation | Obligation of Cooperation |

Remarks: O/M; Operation/maintenance

Sources: Field survey of Feasibility Study for the Improvement of Agricultural Marketing system in Santa Cruz, Bolivia, 1998

表 7-1 組織化教育および技術普及プログラム実施計画案 - 1/2

| C/D Center | Program | Year | | | | | | | | | | Implementation | | |
|-------------------------------|-----------------------------|------|------|------|------|------|------|------|------|------|------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | | 2009 & on | |
| San Isidro | Inst. Training Program | | | | | | | | | | | | | <hr style="border-top: 1px solid black;"/> By Project <hr style="border-top: 1px dashed black;"/> By C/D center <hr style="border-top: 1px dashed black;"/> Need basis by CIAT |
| | 1. Preparatory Stage | | | | | | | | | | | | | |
| | - Mass Guidance | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | 2. Initial Stage | | | | | | | | | | | | | |
| | - Guidance/Training Program | | | | | | | | | | | | | |
| | 3. Advanced Stage | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | Extension Program | | | | | | | | | | | | | |
| | 1. Preliminary Survey | | | | | | | | | | | | | |
| 2. Verification Trial | | | | | | | | | | | | | | |
| 3. Demonstration Plot | | | | | | | | | | | | | | |
| 4. Field Extension Activities | | | | | | | | | | | | | | |
| 5. Staff Training | | | | | | | | | | | | | | |
| 6. Farmers Training | | | | | | | | | | | | | | |
| 7. Short Farmers Training | | | | | | | | | | | | | | |
| 8. Mass Guidance | | | | | | | | | | | | | | |
| 9. Study Tour | | | | | | | | | | | | | | |
| 10. Marketing Guidance/Trials | | | | | | | | | | | | | | |
| Samaipata | Inst. Training Program | | | | | | | | | | | | <hr style="border-top: 1px solid black;"/> By Project <hr style="border-top: 1px dashed black;"/> By C/D center <hr style="border-top: 1px dashed black;"/> Need basis by CIAT Combined with Saipina & Vallegrande | |
| | 1. Preparatory Stage | | | | | | | | | | | | | |
| | - Mass Guidance | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | 2. Initial Stage | | | | | | | | | | | | | |
| | - Guidance/Training Program | | | | | | | | | | | | | |
| | 3. Advanced Stage | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | Extension Program | | | | | | | | | | | | | |
| | 1. Preliminary Survey | | | | | | | | | | | | | |
| 2. Verification Trial | | | | | | | | | | | | | | |
| 3. Demonstration Plot | | | | | | | | | | | | | | |
| 4. Field Extension Activities | | | | | | | | | | | | | | |
| 5. Staff Training | | | | | | | | | | | | | | |
| 6. Farmers Training | | | | | | | | | | | | | | |
| 7. Short Farmers Training | | | | | | | | | | | | | | |
| 8. Mass Guidance | | | | | | | | | | | | | | |
| 9. Study Tour | | | | | | | | | | | | | | |
| 10. Marketing Guidance/Trials | | | | | | | | | | | | | | |
| Vallegrande | Inst. Training Program | | | | | | | | | | | | <hr style="border-top: 1px solid black;"/> By Project <hr style="border-top: 1px dashed black;"/> By C/D center <hr style="border-top: 1px dashed black;"/> Need basis by CIAT Combined with Saipina & Samaipata | |
| | 1. Preparatory Stage | | | | | | | | | | | | | |
| | - Mass Guidance | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | 2. Initial Stage | | | | | | | | | | | | | |
| | - Guidance/Training Program | | | | | | | | | | | | | |
| | 3. Advanced Stage | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | Extension Program | | | | | | | | | | | | | |
| | 1. Preliminary Survey | | | | | | | | | | | | | |
| 2. Verification Trial | | | | | | | | | | | | | | |
| 3. Demonstration Plot | | | | | | | | | | | | | | |
| 4. Field Extension Activities | | | | | | | | | | | | | | |
| 5. Staff Training | | | | | | | | | | | | | | |
| 6. Farmers Training | | | | | | | | | | | | | | |
| 7. Short Farmers Training | | | | | | | | | | | | | | |
| 8. Mass Guidance | | | | | | | | | | | | | | |
| 9. Study Tour | | | | | | | | | | | | | | |
| 10. Marketing Guidance/Trials | | | | | | | | | | | | | | |
| Saipina | Inst. Training Program | | | | | | | | | | | | <hr style="border-top: 1px solid black;"/> By Project <hr style="border-top: 1px dashed black;"/> By C/D center <hr style="border-top: 1px dashed black;"/> On need basis by CIAT Combined with Samaipata/Vallegrande | |
| | 1. Preparatory Stage | | | | | | | | | | | | | |
| | - Mass Guidance | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | 2. Initial Stage | | | | | | | | | | | | | |
| | - Guidance/Training Program | | | | | | | | | | | | | |
| | 3. Advanced Stage | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | Extension Program | | | | | | | | | | | | | |
| | 1. Preliminary Survey | | | | | | | | | | | | | |
| 2. Verification Trial | | | | | | | | | | | | | | |
| 3. Demonstration Plot | | | | | | | | | | | | | | |
| 4. Field Extension Activities | | | | | | | | | | | | | | |
| 5. Staff Training | | | | | | | | | | | | | | |
| 6. Farmers Training | | | | | | | | | | | | | | |
| 7. Short Farmers Training | | | | | | | | | | | | | | |
| 8. Mass Guidance | | | | | | | | | | | | | | |
| 9. Study Tour | | | | | | | | | | | | | | |
| 10. Marketing Guidance/Trials | | | | | | | | | | | | | | |

表 7-1 組織化教育および技術普及プログラム実施計画案 - 2/2

| C/D Center | Program | Year | | | | | | | | | | | Implementation | |
|-------------------------------|-------------------------------|------|------|------|------|------|------|------|------|------|------|------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| | | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | | |
| Mairana | Inst. Training Program | | | | | | | | | | | | | _____ By Project _____ By C/D center _____ Need basis by CIAT _____ Combined with P. Grande/Comarapa |
| | 1. Preparatory Stage | | | | | | | | | | | | | |
| | - Mass Guidance | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | 2. Initial Stage | | | | | | | | | | | | | |
| | - Guidance/Training Program | | | | | | | | | | | | | |
| | 3. Advanced Stage | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | Extension Program | | | | | | | | | | | | | |
| | 1. Preliminary Survey | | | | | | | | | | | | | |
| | 2. Verification Trial | | | | | | | | | | | | | |
| 3. Demonstration Plot | | | | | | | | | | | | | | |
| 4. Field Extension Activities | | | | | | | | | | | | | | |
| 5. Staff Training | | | | | | | | | | | | | | |
| 6. Farmers Training | | | | | | | | | | | | | | |
| 7. Short Farmers Training | | | | | | | | | | | | | | |
| 8. Mass Guidance | | | | | | | | | | | | | | |
| 9. Study Tour | | | | | | | | | | | | | | |
| 10. Marketing Guidance/Trials | | | | | | | | | | | | | | |
| Pampa Grande | Program | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Implementation | |
| | Inst. Training Program | | | | | | | | | | | | _____ By Project _____ By C/D center _____ Need basis by CIAT _____ Combined with Mairana & Comarapa | |
| | 1. Preparatory Stage | | | | | | | | | | | | | |
| | - Mass Guidance | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | 2. Initial Stage | | | | | | | | | | | | | |
| | - Guidance/Training Program | | | | | | | | | | | | | |
| | 3. Advanced Stage | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | Extension Program | | | | | | | | | | | | | |
| | 1. Preliminary Survey | | | | | | | | | | | | | |
| | 2. Verification Trial | | | | | | | | | | | | | |
| 3. Demonstration Plot | | | | | | | | | | | | | | |
| 4. Field Extension Activities | | | | | | | | | | | | | | |
| 5. Staff Training | | | | | | | | | | | | | | |
| 6. Farmers Training | | | | | | | | | | | | | | |
| 7. Short Farmers Training | | | | | | | | | | | | | | |
| 8. Mass Guidance | | | | | | | | | | | | | | |
| 9. Study Tour | | | | | | | | | | | | | | |
| 10. Marketing Guidance/Trials | | | | | | | | | | | | | | |
| Comarapa | Program | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Implementation | |
| | Inst. Training Program | | | | | | | | | | | | _____ By Project _____ By C/D center _____ Need basis by CIAT _____ Combined with Mairana/P. Grande | |
| | 1. Preparatory Stage | | | | | | | | | | | | | |
| | - Mass Guidance | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | 2. Initial Stage | | | | | | | | | | | | | |
| | - Guidance/Training Program | | | | | | | | | | | | | |
| | 3. Advanced Stage | | | | | | | | | | | | | |
| | - Training Program | | | | | | | | | | | | | |
| | Extension Program | | | | | | | | | | | | | |
| | 1. Preliminary Survey | | | | | | | | | | | | | |
| | 2. Verification Trial | | | | | | | | | | | | | |
| 3. Demonstration Plot | | | | | | | | | | | | | | |
| 4. Field Extension Activities | | | | | | | | | | | | | | |
| 5. Staff Training | | | | | | | | | | | | | | |
| 6. Farmers Training | | | | | | | | | | | | | | |
| 7. Short Farmers Training | | | | | | | | | | | | | | |
| 8. Mass Guidance | | | | | | | | | | | | | | |
| 9. Study Tour | | | | | | | | | | | | | | |
| 10. Marketing Guidance/Trials | | | | | | | | | | | | | | |

表 9-1 プロジェクト・オフィスおよびサブ・プロジェクト・オフィス組織案と組織運営管理費用

I. Organization

| Projects Office in Santa Cruz | Functions | Staffing (No. of Staff) | | | |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------|----------------------|---|
| | | Year 2000 - 2001 | 2002 - 2003 | 2004 - 2008 | |
| Organization | | | | | |
| Project Manager | - Coordination with Santa Cruz Municipal Authority in improvement of agricultural marketing system in the department | | | Project Manager | 1 |
| Administrative Staff | | | | Administrative Staff | 1 |
| Secretary | - Financial support to municipal government during initial stage C/D operation | | | Secretary | 1 |
| Sub-Project Office in San Isidro C/D Center | | | | | |
| | | Staffing (No. of Staff) | | | |
| | | Year 2000 - 2001 | 2002 - 2003 | 2004 - 2008 | |
| Organization | | | | | |
| Sub-Project Manager | - Guidance & support for development & Operation of C/D centers | | Sub-Project Manager | 1 | 1 |
| Planning & Development Section | | | Section Chief | 3 | 2 |
| Technical & Institutional Guidance Section | - Monitoring development & operation of C/D centers | | Technical Staff | 2 | 3 |
| Administration Section | - Institutional training & technical extension program to farmers & personnel concerned | | Administrative Staff | 1 | 2 |

II. Estimated Administration Costs

| Cost Items | Year | | | | | | | | | | Total | Remarks |
|-------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|---------------------------|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | | | |
| 1. Personnel Expenses | 104,000 | 104,000 | 118,000 | 118,000 | 92,000 | 92,000 | 92,000 | 92,000 | 92,000 | 92,000 | 904,000 | |
| - Project Manager | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 180,000 | US\$20,000/year |
| - Sub-Project Manager | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 15,000 | 135,000 | US\$15,000/year |
| - Section Chief | 36,000 | 36,000 | 36,000 | 36,000 | 24,000 | 24,000 | 24,000 | 24,000 | 24,000 | 24,000 | 264,000 | US\$12,000/year |
| - Technical Staff | 16,000 | 16,000 | 24,000 | 24,000 | 16,000 | 16,000 | 16,000 | 16,000 | 12,000 | 12,000 | 160,000 | US\$ 8,000/year |
| - Administrative Staff | 12,000 | 12,000 | 18,000 | 18,000 | 12,000 | 12,000 | 12,000 | 12,000 | 12,000 | 12,000 | 120,000 | US\$ 6,000/year |
| - Secretary | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 5,000 | 45,000 | US\$ 5,000/year |
| 2. Procurements of Vehicle/Equipment etc. | 45,000 | 11,000 | 40,000 | | | | | | | | 96,000 | |
| - Vehicle | 40,000 | | 40,000 | | | | | | | | 80,000 | US\$40,000/unit |
| - Motorcycle | | 6,000 | | | | | | | | | 6,000 | US\$ 3,000/unit |
| - Others | 5,000 | 5,000 | | | | | | | | | 10,000 | computer, furnitures etc. |
| 3. Operation & Administration Costs | 31,200 | 31,200 | 35,400 | 35,400 | 27,600 | 27,600 | 27,600 | 27,600 | 27,600 | 27,600 | 271,200 | 30% of personnel expenses |
| Total Costs | 180,200 | 146,200 | 193,400 | 153,400 | 119,600 | 119,600 | 119,600 | 119,600 | 119,600 | 119,600 | 1,271,200 | |

表 9-2 產地集出荷場開發計畫案

| Collection Center/Development Step | Year | | | | | |
|--------------------------------------------------------|-------|-------|-------|-------|-------|-------|
| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
| San Isidro C/D Center(Pilot Project) | | | | | | |
| Steering Committee for Development | _____ | _____ | | | | |
| Trial Operation at PETHOSAM Facility | _____ | _____ | | | | |
| Institutional Training to Potential Users | _____ | _____ | | | | |
| Guidance & Organization of Users Groups | | | _____ | _____ | _____ | _____ |
| Construction | | _____ | _____ | _____ | _____ | _____ |
| Operation & Management Arrangement | | _____ | _____ | _____ | _____ | _____ |
| Steering Committee for O&M | | _____ | _____ | _____ | _____ | _____ |
| Preparatory Stage | _____ | _____ | _____ | _____ | _____ | _____ |
| Operation Stage | | | _____ | _____ | _____ | _____ |
| Samalpata C/D Center | | | | | | |
| Steering Committee for Development | | | _____ | _____ | _____ | _____ |
| Trial Operation at Existing Facility | | | _____ | _____ | _____ | _____ |
| Institutional Training to Potential Users | | | _____ | _____ | _____ | _____ |
| Guidance & Organization of Users Groups | | | | _____ | _____ | _____ |
| Construction | | | | _____ | _____ | _____ |
| Operation & Management Arrangement | | | | _____ | _____ | _____ |
| Steering Committee for O&M | | | | _____ | _____ | _____ |
| Preparatory Stage | | | _____ | _____ | _____ | _____ |
| Operation Stage | | | _____ | _____ | _____ | _____ |
| Vallegrande & Saipina C/D Centers | | | | | | |
| Steering Committee for Development | | | _____ | _____ | _____ | _____ |
| Institutional Training to Potential Users | | | _____ | _____ | _____ | _____ |
| Guidance & Organization of Users Groups | | | | _____ | _____ | _____ |
| Construction | | | | _____ | _____ | _____ |
| Operation & Management Arrangement | | | | _____ | _____ | _____ |
| Steering Committee for O&M | | | | _____ | _____ | _____ |
| Preparatory Stage | | | _____ | _____ | _____ | _____ |
| Operation Stage | | | _____ | _____ | _____ | _____ |
| Mairana, Pampa Grande & Comarapa C/D Center | | | | | | |
| Steering Committee for Development | | | | _____ | _____ | _____ |
| Institutional Training to Potential Users | | | | _____ | _____ | _____ |
| Guidance & Organization of Users Groups | | | | | _____ | _____ |
| Construction | | | | | _____ | _____ |
| Operation & Management Arrangement | | | | | _____ | _____ |
| Steering Committee for O&M | | | | | _____ | _____ |
| Preparatory Stage | | | | _____ | _____ | _____ |
| Operation Stage | | | | _____ | _____ | _____ |

表 9-3 産地集出荷場開発・運営管理全体実施計画 -1/2

| C/D Center/Development Stage & Activities | Agencies | Year | | | | | | | | | | | |
|---------------------------------------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Project & Sub-Project Office | Prefecture | ----- | | | | | | | | | | | |
| San Isidro C/D Center(Pilot Project) | | | | | | | | | | | | | |
| Development Stage | | | | | | | | | | | | | |
| - Preparatory Stage | - | ----- | ----- | | | | | | | | | | |
| - Initial Stage | - | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| - Advanced Stage | - | | | | | | | | | | | | ----- |
| Development Activities | | | | | | | | | | | | | |
| - Steering Committee for Development | A | ----- | ----- | | | | | | | | | | |
| - Trial Operation at PETHOSAM Facility | B | ----- | ----- | | | | | | | | | | |
| - Institutional Training | C | ----- | ----- | | | | | | | | | | |
| | D | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| - Technical Extension | E | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| | D | | | | | | | | | | | | ----- |
| - Construction | F | | ----- | | | | | | | | | | |
| - Operation & Management Arrangement | A | | ----- | | | | | | | | | | |
| - Steering Committee for O & M | A | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| - Operation of C/D Center | D | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Samaipata C/D Center | | | | | | | | | | | | | |
| Development Stage | | | | | | | | | | | | | |
| - Preparatory Stage | - | | | ----- | ----- | | | | | | | | |
| - Initial Stage | - | | | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| - Advanced Stage | - | | | | | | | | | | | | ----- |
| Development Activities | | | | | | | | | | | | | |
| - Steering Committee for Development | A | | | ----- | ----- | | | | | | | | |
| - Trial Operation at Existing Facility | B | | | ----- | ----- | | | | | | | | |
| - Institutional Training | C | | | ----- | ----- | | | | | | | | |
| | D | | | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| - Technical Extension | E | | | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| | D | | | | | | | | | | | | ----- |
| - Construction | F | | | | | ----- | | | | | | | |
| - Operation & Management Arrangement | A | | | | | ----- | | | | | | | |
| - Steering Committee for O & M | A | | | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| - Operation of C/D Center | D | | | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| Vallegrande & Saipina C/D Center | | | | | | | | | | | | | |
| Development Stage | | | | | | | | | | | | | |
| - Preparatory Stage | - | | | ----- | ----- | | | | | | | | |
| - Initial Stage | - | | | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| - Advanced Stage | - | | | | | | | | | | | | ----- |
| Development Activities | | | | | | | | | | | | | |
| - Steering Committee for Development | A | | | ----- | ----- | | | | | | | | |
| - Institutional Training | C | | | ----- | ----- | | | | | | | | |
| | D | | | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| - Technical Extension | E | | | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| | D | | | | | | | | | | | | ----- |
| - Construction | F | | | | | ----- | | | | | | | |
| - Operation & Management Arrangement | A | | | | | ----- | | | | | | | |
| - Steering Committee for O & M | A | | | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |
| - Operation of C/D Center | D | | | | | ----- | ----- | ----- | ----- | ----- | ----- | ----- | ----- |

Remark: Agencies --- Implementation agencies of development activities: A = Sub-project office, B = Sub-project office/ASOFRUT, C = Sub-project office, D = C/D center, E = Sub-project office/CIAT, F = Municipal Gov.

表 9-3 産地集出荷場開発・運営管理全体実施計画 -2/2

| Collection Center/Development Activities | Agencies | Year | | | | | | | | | | | |
|------------------------------------------|------------|------|------|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Project & Sub-Project Office | Prefecture | | | | | | | | | | | | |
| Mairana C/D Center | | | | | | | | | | | | | |
| Development Stage | | | | | | | | | | | | | |
| - Preparatory Stage | - | | | | - - - - | | | | | | | | |
| - Initial Stage | - | | | | | | - - - - | - - - - | - - - - | - - - - | | | |
| - Advanced Stage | - | | | | | | | | | | | - - - - | - - - - |
| Development Activities | | | | | | | | | | | | | |
| - Steering Committee for Development | A | | | | - - - - | - - - - | | | | | | | |
| - Institutional Training | C | | | | - - - - | - - - - | | | | | | | |
| | D | | | | | | - - - - | - - - - | - - - - | - - - - | | | |
| - Technical Extension | E | | | | | - - - - | - - - - | - - - - | - - - - | - - - - | | | |
| | D | | | | | | | | | | | - - - - | - - - - |
| - Construction | F | | | | | - - - - | - - - - | | | | | | |
| - Operation & Management Arrangement | A | | | | | - - - - | - - - - | | | | | | |
| - Steering Committee for O & M | A | | | | | - - - - | - - - - | - - - - | - - - - | - - - - | | | |
| - Operation of C/D Center | D | | | | | | | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - |
| Pampa Grande C/D Center | | | | | | | | | | | | | |
| Development Stage | | | | | | | | | | | | | |
| - Preparatory Stage | - | | | | - - - - | | | | | | | | |
| - Initial Stage | - | | | | | | - - - - | - - - - | - - - - | - - - - | | | |
| - Advanced Stage | - | | | | | | | | | | | - - - - | - - - - |
| Development Activities | | | | | | | | | | | | | |
| - Steering Committee for Development | A | | | | - - - - | - - - - | | | | | | | |
| - Institutional Training | C | | | | - - - - | - - - - | | | | | | | |
| | D | | | | | | - - - - | - - - - | - - - - | - - - - | | | |
| - Technical Extension | E | | | | | - - - - | - - - - | - - - - | - - - - | - - - - | | | |
| | D | | | | | | | | | | | - - - - | - - - - |
| - Construction | F | | | | | - - - - | - - - - | | | | | | |
| - Operation & Management Arrangement | A | | | | | - - - - | - - - - | | | | | | |
| - Steering Committee for O & M | A | | | | | - - - - | - - - - | - - - - | - - - - | - - - - | | | |
| - Operation of C/D Center | D | | | | | | | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - |
| Comarapa C/D Center | | | | | | | | | | | | | |
| Development Stage | | | | | | | | | | | | | |
| - Preparatory Stage | - | | | | - - - - | | | | | | | | |
| - Initial Stage | - | | | | | | - - - - | - - - - | - - - - | - - - - | | | |
| - Advanced Stage | - | | | | | | | | | | | - - - - | - - - - |
| Development Activities | | | | | | | | | | | | | |
| - Steering Committee for Development | A | | | | - - - - | - - - - | | | | | | | |
| - Institutional Training | C | | | | - - - - | - - - - | | | | | | | |
| | D | | | | | | - - - - | - - - - | - - - - | - - - - | | | |
| - Technical Extension | E | | | | | - - - - | - - - - | - - - - | - - - - | - - - - | | | |
| | D | | | | | | | | | | | - - - - | - - - - |
| - Construction | F | | | | | - - - - | - - - - | | | | | | |
| - Operation & Management Arrangement | A | | | | | - - - - | - - - - | | | | | | |
| - Steering Committee for O & M | A | | | | | - - - - | - - - - | - - - - | - - - - | - - - - | | | |
| - Operation of C/D Center | D | | | | | | | - - - - | - - - - | - - - - | - - - - | - - - - | - - - - |

Remark: Agencies --- Implementation agencies of development activities: A = Sub-project office, B = Sub-project office/ASOFRUT, C = Sub-project office, D = C/D center, E = Sub-project office/CIAT, F = Municipal Gov.

表 9-4 事業全体実施計画および新規卸売市場・旧アバスト市場・産地集出荷場におけるトレーニング・技術支援実施計画

| Item | 1999 | | | 2000 | | | 2001 | | | 2002 | | | 2003 | | | 2004 | | | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------|---|---|------|---|---|------|---|---|------|---|---|------|---|---|------|---|---|------|------|------|------|------|------|
| | 3 | 4 | 5 | 3 | 4 | 5 | 3 | 4 | 5 | 3 | 4 | 5 | 3 | 4 | 5 | 3 | 4 | 5 | | | | | | |
| Development of the Project Structure | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Preparation and submission of request letter on financial aid and technical assistance | Tentative | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Office for project preparation | ▲ Final | | | | | | | | | | | | | | | | | | | | | | | |
| 3. Preparation Committee | ▲ | | | | | | | | | | | | | | | | | | | | | | | |
| 4. Mixed Board | ▲ | | | | | | | | | | | | | | | | | | | | | | | |
| 5. Project Office for NWM, Abasto Mkt & C/D Centers | ▲ | | | | | | | | | | | | | | | | | | | | | | | |
| Development of NWM and Abasto Market | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Management Committee of NWM | ▲ MC | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Management Body of NWM | ▲ MC | | | | | | | | | | | | | | | | | | | | | | | |
| 3. Management Committee of Abasto Market | ▲ MC | | | | | | | | | | | | | | | | | | | | | | | |
| 4. Management Body of Abasto Market | ▲ MB | | | | | | | | | | | | | | | | | | | | | | | |
| 5. Development of Law/Regulation of NWM | ▲ MB | | | | | | | | | | | | | | | | | | | | | | | |
| 6. Development of Law/Regulation of Abasto Market | ▲ MB | | | | | | | | | | | | | | | | | | | | | | | |
| 7. Qualification / Registration of Wholesalers | Design | | | | | | | | | | | | | | | | | | | | | | | |
| 8. Land Acquisition and Site Preparation | Phase 1 Construction | | | | | | | | | | | | | | | | | | | | | | | |
| 9. Design and Construction of the NWM | Phase 2 Construction | | | | | | | | | | | | | | | | | | | | | | | |
| 10. Management and O/M of the NWM | Phase 1 | | | | | | | | | | | | | | | | | | | | | | | |
| 11. Management and O/M of the Abasto Market | Phase 1 + Phase 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Training in NWM | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Program of Domestic Training and Technical Assist. | NWM | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Implementation of Domestic Training and TA | Abasto | | | | | | | | | | | | | | | | | | | | | | | |
| For Group A - Marketing System | | | | | | | | | | | | | | | | | | | | | | | | |
| - Law/Regulation and Management and O/M | | | | | | | | | | | | | | | | | | | | | | | | |
| For Group B - Marketing System | | | | | | | | | | | | | | | | | | | | | | | | |
| - Law/Regulation and Management and O/M | | | | | | | | | | | | | | | | | | | | | | | | |
| For Group C - Organizing Small Scale Producer/Trader | | | | | | | | | | | | | | | | | | | | | | | | |
| - Rule/Regulation and O/M | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. Study Tour in CBB | | | | | | | | | | | | | | | | | | | | | | | | |
| For Group A | | | | | | | | | | | | | | | | | | | | | | | | |
| For Group B | | | | | | | | | | | | | | | | | | | | | | | | |
| Development of C/D Centers in Production Areas | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Program of Domestic Training and Technical Assist. | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Sub-Project Office (Pilot Project) | Sub-Project Office/CIAT | | | | | | | | | | | | | | | | | | | | | | | |
| San Isidro C/D Center (Pilot Project) | C/D Center | | | | | | | | | | | | | | | | | | | | | | | |
| Steering Committee for Development | | | | | | | | | | | | | | | | | | | | | | | | |
| Trial Operation at PETHOSAM Facility | | | | | | | | | | | | | | | | | | | | | | | | |
| Technical Extension | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction | | | | | | | | | | | | | | | | | | | | | | | | |
| Steering Committee for O & M | | | | | | | | | | | | | | | | | | | | | | | | |
| Operation of C/D Center | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. Samaipata C/D Center | Sub-Project Office/CIAT | | | | | | | | | | | | | | | | | | | | | | | |
| Steering Committee for Development | | | | | | | | | | | | | | | | | | | | | | | | |
| Trial Operation at Existing Facility | | | | | | | | | | | | | | | | | | | | | | | | |
| Technical Extension | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction | | | | | | | | | | | | | | | | | | | | | | | | |
| Steering Committee for O & M | | | | | | | | | | | | | | | | | | | | | | | | |
| Operation of C/D Center | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. Vallegrande & Saipina C/D Center | Sub-Project Office/CIAT | | | | | | | | | | | | | | | | | | | | | | | |
| Steering Committee for Development | | | | | | | | | | | | | | | | | | | | | | | | |
| Technical Extension | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction | | | | | | | | | | | | | | | | | | | | | | | | |
| Steering Committee for O & M | | | | | | | | | | | | | | | | | | | | | | | | |
| Operation of C/D Center | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. Mairana, Pampa Grande, & Comarapa C/D Centers | Sub-Project Office/CIAT | | | | | | | | | | | | | | | | | | | | | | | |
| Steering Committee for Development | | | | | | | | | | | | | | | | | | | | | | | | |
| Technical Extension | | | | | | | | | | | | | | | | | | | | | | | | |
| Construction | | | | | | | | | | | | | | | | | | | | | | | | |
| Steering Committee for O & M | | | | | | | | | | | | | | | | | | | | | | | | |
| Operation of C/D Center | | | | | | | | | | | | | | | | | | | | | | | | |
| Training in C/D Centers | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. San Isidro C/D Center (Pilot Project) | Institutional Training | | | | | | | | | | | | | | | | | | | | | | | |
| Technical Extension | | | | | | | | | | | | | | | | | | | | | | | | |
| Joint Shipment and Selling | | | | | | | | | | | | | | | | | | | | | | | | |
| Quality Control and Accounting | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Samaipata C/D Center | Institutional Training | | | | | | | | | | | | | | | | | | | | | | | |
| Technical Extension | | | | | | | | | | | | | | | | | | | | | | | | |
| Joint Shipment and Selling | | | | | | | | | | | | | | | | | | | | | | | | |
| Quality Control and Accounting | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. Vallegrande & Saipina C/D Center | Institutional Training | | | | | | | | | | | | | | | | | | | | | | | |
| Technical Extension | | | | | | | | | | | | | | | | | | | | | | | | |
| Joint Shipment and Selling | | | | | | | | | | | | | | | | | | | | | | | | |
| Quality Control and Accounting | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. Mairana, Pampa Grande, & Comarapa C/D Centers | Institutional Training | | | | | | | | | | | | | | | | | | | | | | | |
| Technical Extension | | | | | | | | | | | | | | | | | | | | | | | | |
| Joint Shipment and Selling | | | | | | | | | | | | | | | | | | | | | | | | |
| Quality Control and Accounting | | | | | | | | | | | | | | | | | | | | | | | | |
| Training in Foreign Country and Technical Assistance by Foreign Expert | | | | | | | | | | | | | | | | | | | | | | | | |
| 1. Preparation and submission of Request Letter for TA for Foreign Country | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Program of Training and TA by Foreign Country | | | | | | | | | | | | | | | | | | | | | | | | |
| 3. TA by Expert from Advanced Country | | | | | | | | | | | | | | | | | | | | | | | | |
| I. Preparation Stage | | | | | | | | | | | | | | | | | | | | | | | | |
| A- Long Term Technical Advisor for C/D, NWM, and Abasto Market (2 years) | | | | | | | | | | | | | | | | | | | | | | | | |
| B- Short Term Technical Advisor for C/D Pilot Project (1 year) | | | | | | | | | | | | | | | | | | | | | | | | |
| II. Implementation Stage | | | | | | | | | | | | | | | | | | | | | | | | |
| C- Long Term Technical Advisor for Coordination and Rationalization of Marketing (4 years) | | | | | | | | | | | | | | | | | | | | | | | | |
| D- Long Term Technical Advisor for C/D, Joint Shipment and Sales (5 years) | | | | | | | | | | | | | | | | | | | | | | | | |
| E- Long Term Technical Advisor for Quality Control and Accounting System on Joint Collection / Distribution (2 years) | | | | | | | | | | | | | | | | | | | | | | | | |
| F- Long Term Technical Advisor for Management and O/M of NWM and Abasto Market (4 years) | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. Training in an Advanced Country | | | | | | | | | | | | | | | | | | | | | | | | |
| For Group A | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. Study Tour in MERCOSUR Country | | | | | | | | | | | | | | | | | | | | | | | | |
| For Group A | | | | | | | | | | | | | | | | | | | | | | | | |

Remarks: NWM: New Wholesale Market; C/D Center: Collection/Distribution Center; MC: Management Committee; MB: Management Body; O/M: Operation/Maintenance



表 9-5 プロジェクト・オフィス負担となる産地集出荷場計画の事業費

Unit: US\$ 1,000

| Cost Items | Year | | | | | | | | | | Total |
|----------------------------------------------------------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
| | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | |
| 1. Institutional Training & Technical Extension Program Costs | 9.0 | 26.4 | 83.8 | 159.0 | 163.8 | 131.7 | 119.2 | 63.0 | 66.9 | 27.5 | 850.3 |
| - Institutional Training Program Costs | 9.0 | 15.5 | 57.2 | 105.2 | 48.0 | | | | | | 234.9 |
| - Technical Extension Program Costs | | 10.9 | 26.6 | 53.8 | 115.8 | 131.7 | 119.2 | 63.0 | 66.9 | 27.5 | 615.4 |
| 2. Administration Costs of Project Office & Sub-Project Office | | 180.2 | 146.2 | 193.4 | 153.4 | 119.6 | 119.6 | 119.6 | 119.6 | 119.6 | 1271.2 |
| Total Costs for Project Implementation | 9.0 | 206.6 | 230.0 | 352.4 | 317.2 | 251.3 | 238.8 | 182.6 | 186.5 | 147.1 | 2,121.5 |

Remarks 1: Institutional Training & Technical Extension Program Costs --- details are shown in Tables A.1.6-6 & 6-8.

Remarks 2: Administration Costs of Project Office & Sub-Project Office --- details are shown in Tables A.1.7-1.

表 9-6 新規卸売市場運営母体の損益計算書およびキャッシュ・フロー

Unit: US\$

| | 2001 | 1 2002 | 2 2003 | 3 2004 | 4 2005 | 5 2006 | 6 2007 | 7 2008 | 8 2009 | 9 2010 | 10 2011 | 11 2012 | 12 2013 | 13 2014 |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|
| I Income Statement | | | | | | | | | | | | | | |
| A. Revenue | | 173,724 | 348,071 | 348,809 | 349,548 | 350,624 | 351,701 | 352,778 | 353,854 | 354,931 | 356,008 | 357,084 | 358,161 | 359,237 |
| 1) Rental fee of space | | 162,367 | 324,733 | 324,733 | 324,733 | 324,733 | 324,733 | 324,733 | 324,733 | 324,733 | 324,733 | 324,733 | 324,733 | 324,733 |
| 2) Entering truck charge | | 11,357 | 23,338 | 24,076 | 24,815 | 25,891 | 26,968 | 28,045 | 29,121 | 30,198 | 31,274 | 32,351 | 33,428 | 34,504 |
| B. Expense | | 283,362 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 |
| 1) Operation | | 66,744 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 |
| 2) Maintenance | | 28,641 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 |
| 3) Depreciation | | 187,977 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 |
| 4) Interest | | | | | | | | | | | | | | |
| C. Income before Depr. & Interest | | 78,338 | 157,301 | 158,039 | 158,778 | 159,854 | 160,931 | 162,008 | 163,084 | 164,161 | 165,237 | 166,314 | 167,391 | 168,467 |
| D. Net Income | | -109,639 | -218,654 | -217,915 | -217,176 | -216,100 | -215,023 | -213,947 | -212,870 | -211,793 | -210,717 | -209,640 | -208,564 | -207,487 |
| II Cash Flow | | | | | | | | | | | | | | |
| A. Source of Funds | 8,152,423 | 8,424,904 | 157,301 | 158,039 | 158,778 | 159,854 | 160,931 | 162,008 | 163,084 | 164,161 | 165,237 | 166,314 | 167,391 | 168,467 |
| 1) Government | 8,152,423 | 8,346,566 | | | | | | | | | | | | |
| 2) Loan | | | | | | | | | | | | | | |
| 3) Own equity | | | | | | | | | | | | | | |
| 4) Depreciation | | 187,977 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 |
| 5) Net income | | -109,639 | -218,654 | -217,915 | -217,176 | -216,100 | -215,023 | -213,947 | -212,870 | -211,793 | -210,717 | -209,640 | -208,564 | -207,487 |
| B. Uses of Funds | 8,152,423 | 8,346,566 | | | | 52,007 | | | | | 82,344 | | | |
| 1) Building | 8,073,969 | 8,298,337 | | | | | | | | | | | | |
| 2) Equipment | 78,454 | 48,229 | | | | | | | | | | | | |
| 3) Reinvestment | | | | | | 52,007 | | | | | 82,344 | | | |
| 4) Repayment of loan | | | | | | | | | | | | | | |
| C. Net cash flow | | 78,338 | 157,301 | 158,039 | 158,778 | 107,848 | 160,931 | 162,008 | 163,084 | 164,161 | 82,893 | 166,314 | 167,391 | 168,467 |

Remarks:

1. Revenue (rental and truck charge) and Expenses (Operation, maintenance and depreciation) during the 1st year of operation will be approximately half of normal years operation due to phased construction.
2. Rental space charged at Bs.25/day for one lot (15 sqm)
3. Truck charge at Bs.1 for jeep, Bs.3 for 5 ton truck, Bs.5 for 10 ton truck, and Bs.10 for 20 ton truck.
4. Depreciation, Maintenance and Reinvestment costs are calculated based on 65% of Building/Equipment cost assuming depreciation, maintenance & reinvestment are undertaken at local prices by local contractors/suppliers.
5. Operation expense (personnel, utilities, electricity, etc.) rationalized for effective operation.

表 9-7 新規卸売市場運営母体の損益計算書およびキャッシュ・フロー（減価償却費を回収するために収入を増加させた場合）

| | | Unit: US\$ | | | | | | | | | | | | | | | | |
|----|-----------------------------------|------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | |
| | | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| I | Income Statement | | | | | | | | | | | | | | | | | |
| | A. Revenue | | 282,500 | 566,248 | 567,725 | 569,202 | 571,356 | 573,509 | 575,662 | 577,815 | 579,969 | 582,122 | 584,275 | 586,428 | 588,582 | 590,735 | 592,888 | 595,041 |
| | 1) Rental fee of space | | 259,786 | 519,573 | 519,573 | 519,573 | 519,573 | 519,573 | 519,573 | 519,573 | 519,573 | 519,573 | 519,573 | 519,573 | 519,573 | 519,573 | 519,573 | 519,573 |
| | 2) Entering truck charge | | 22,714 | 46,675 | 48,152 | 49,629 | 51,783 | 53,936 | 56,089 | 58,242 | 60,396 | 62,549 | 64,702 | 66,855 | 69,009 | 71,162 | 73,315 | 75,468 |
| | B. Expense | | 283,362 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 |
| | 2) Operation | | 66,744 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 |
| | 3) Maintenance | | 28,641 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 |
| | 4) Depreciation | | 187,977 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 |
| | 5) Interest | | | | | | | | | | | | | | | | | |
| | C. Income before Depr. & Interest | | 187,115 | 375,478 | 376,955 | 378,432 | 380,586 | 382,739 | 384,892 | 387,045 | 389,199 | 391,352 | 393,505 | 395,658 | 397,811 | 399,965 | 402,118 | 404,271 |
| | D. Net Income | | -862 | -476 | 1,001 | 2,478 | 4,631 | 6,785 | 8,938 | 11,091 | 13,244 | 15,398 | 17,551 | 19,704 | 21,857 | 24,010 | 26,164 | 28,317 |
| II | Cash Flow | | | | | | | | | | | | | | | | | |
| | A. Source of Funds | 8,152,423 | 8,533,681 | 375,478 | 376,955 | 378,432 | 380,586 | 382,739 | 384,892 | 387,045 | 389,199 | 391,352 | 393,505 | 395,658 | 397,811 | 399,965 | 402,118 | 404,271 |
| | 1) Government | 8,152,423 | 8,346,566 | | | | | | | | | | | | | | | |
| | 2) Loan | | | | | | | | | | | | | | | | | |
| | 3) Own equity | | | | | | | | | | | | | | | | | |
| | 4) Depreciation | | 187,977 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 |
| | 5) Net income | | -862 | -476 | 1,001 | 2,478 | 4,631 | 6,785 | 8,938 | 11,091 | 13,244 | 15,398 | 17,551 | 19,704 | 21,857 | 24,010 | 26,164 | 28,317 |
| | B. Uses of Funds | 8,152,423 | 8,346,566 | | | | 52,007 | | | | | 82,344 | | | | | 83,402 | |
| | 1) Building | 8,075,969 | 8,298,337 | | | | | | | | | | | | | | | |
| | 2) Equipment | 78,454 | 48,229 | | | | | | | | | | | | | | | |
| | 3) Reinvestment | | | | | 52,007 | | | | | | 82,344 | | | | | 83,402 | |
| | 4) Repayment of loan | | | | | | | | | | | | | | | | | |
| | C. Net cash flow | | 187,115 | 375,478 | 376,955 | 378,432 | 328,579 | 382,739 | 384,892 | 387,045 | 389,199 | 309,008 | 393,505 | 395,658 | 397,811 | 399,965 | 318,716 | 404,271 |

Remarks:

1. Revenue (rental and truck charge) and Expenses (Operation, maintenance and depreciation) during the 1st year of operation will be approximately half of normal years operation due to phased construction.
2. Rental space charged at Bs.40/day for one lot (15 sqm)
3. Truck charge at Bs.2 for jeep, Bs.6 for 5 ton truck, Bs.10 for 10 ton truck, and Bs.20 for 20 ton truck.
4. Depreciation, Maintenance and Reinvestment costs are calculated based on 65% of Total Cost assuming depreciation, maintenance & reinvestment are undertaken at local prices by local contractors/suppliers.
5. Operation expense (personnel, utilities, electricity, etc.) rationalized for effective operation.

表 10-1 環境影響評価—産地集出荷場（既存施設リハビリおよび新設）- 1/2

| Activity | Potential Impact | Classification | Countermeasures to be Considered |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXECUTION / CONSTRUCTION STAGE | | | |
| Land Preparation, Site clearing / tree cutting | - Stripping of existing vegetation and some trees | T, D, Lc, A | To replant trees and other landscaping work after construction completed. |
| Infrastructure Preparation, Excavation (Cut and Fill) | - Removal of some soil - Importing of soil to use as fill | T, D, Lc, A | Unwanted or unsuitable excavated soil should be disposed off in a proper place. |
| Infrastructure / Superstructure Rehabilitation / Construction | - Construction activities on site will create noise, dust, and increase construction traffic on road | T, D, Lc, A | Construction activities should be restricted to working hours and constructional plant traffic should be cautioned to travel at low speed especially passing through populated areas. |
| Utilities, Temporary services (water, electricity, telephone) supply | - Construction activities will make use of water & electricity supply on the site | T, D, Lc, A | Capacity of existing water & electricity supply to be investigated by the contractor to ensure that these services are adequate and will not disrupt the supply to the surrounding areas of the project site. |
| Employment - Construction labour force | - labour force will create demand for services (transport, restaurant, etc.) at the site | T, D, Lc, B, R | Encourage the contractor to hire local labourers from the community. |
| Scenery - Landscaping | - landscaping of the site will seek to improve the scenery and reduce the vision impact of the structures. | P, D, Lc, B, R | Encourage the planting of hardy trees and plants suitable for the local environment. |
| MARKETING ACTIVITIES, OPERATION / MAINTENANCE | | | |
| Traffic / Vehicle movements | - Impact on physiological system in terms of increase traffic flow to the area creating noise, and dust. | T, D, Lc, A, R | Low number / frequency of traffic will not require new traffic control requirements. |
| Solid waste | - Solid waste if not properly handled may cause bad odour, pollution, breed rodents and vectors, and create a health hazard | T, D, Lc, A | Solid waste will be minimal and majority will be organic in nature which could be recycled into compost for use on the farm. Project to provide proper facilities to handle the solid waste.. |
| Sewage discharge | - Major pollutants such as suspended solids, BODs, fecal coliforms, etc. will cause pollution, contamination of ground water, and health problems if not properly treated / handled. | P, D, Lc, A | Sewage discharge will be minimal due to small number of users. Project to provide septic tank to handle the sewage. |
| Market activities - loading / unloading, parking/waiting, packing/sorting, sales of products Maintenance activities of equipment, facilities / building | - These activities will create new jobs and opportunities in the market and surrounding area. These activities will impact on the life-style and communal needs of the users. | T, D, Lc, B, R | Opportunities should be given to local inhabitants and people affected (eg. porters in Abasto market) by the relocation of wholesale function. |

表 10-1 環境影響評価—産地集出荷場（既存施設リハビリおよび新設）— 2/2

| Activity | Potential Impact | Classification | Countermeasures to be Considered |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FUTURE INDUCE EFFECTS | | | |
| - Promote related activities nearby | - Operation of the center will impact indirectly on the surrounding commerce/ activities of the area in future creating new job opportunities. | P, I, Lc, B, R | Future development of the area surrounding the center will need to be considered by the municipalities. |
| ABANDONMENT | | | |
| - Notice to close | - This will impact on the jobs and surrounding business associated with the center. | P, D, Lc, A, R | In case of closure, alternative use of the facilities must be found to lessen the impact of the closure on the area and people associated with the center. |
| EXTENSION ACTIVITIES | | | |
| - Training / education | - Knowledge empowerment will impact on behavioral changes that may lead to improved quality of life. Impact on the increase in production and commercialization will also improve the economic situation of the farmers | P, I, St, B, R | Equity of access to be assured by the user group and management body of the center. |

Legend:

T = Temporary impact

P = Permanent impact

D = Direct impact

I = Indirect impact

Lc = Local impact

St = Strategic impact

A = Adverse impact

B = Beneficial impact

R = Reversible I r= Irreversible

Note on Classification:

Impact that is Significant, will be further classified into Reversible or Irreversible impacts.

表 10-2 環境影響評估—新規卸壳市場 -1/2

| Activity | Potential Impact | Classification | Countermeasures to be Considered |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EXECUTION / CONSTRUCTION STAGE | | | |
| Land Preparation, Site clearing / tree cutting | - Stripping of existing vegetation and some trees | T, D, Lc, A | To replant trees and other landscaping work after construction completed. |
| Infrastructure Preparation, Excavation (Cut and Fill) | - Removal of some soil - Importing of soil to use as fill | T, D, Lc, A | Unwanted or unsuitable excavated soil should be disposed off in a proper place. |
| Demolition / Relocation | - Brick factories to be demolished and activities to be relocated elsewhere. | T, D, Lc, A | Compensation for the demolition and relocation must be acceptable to the owners. |
| Infrastructure / Superstructure Construction | - Construction activities on site will create noise, dust, and increase construction traffic on road | T, D, Lc, A | Construction activities should be restricted to working hours and constructional plant traffic should be cautioned to travel at low speed especially passing through populated areas. |
| Utilities, Temporary services (water, electricity, telephone) supply | - Construction activities will make use of water & electricity supply on the site | T, D, Lc, A | Capacity of existing water & electricity supply to be investigated by the contractor to ensure that these services are adequate and will not disrupt the supply to the surrounding areas of the project site. |
| Employment - Construction labour force | - labour force will create demand for services (transport, restaurant, etc.) at the site | T, D, Lc, B, R | Encourage the contractor to hire local labourers from the community. |
| Scenery - Landscaping | - landscaping of the site will seek to improve the scenery and reduce the vision impact of the structures. | P, D, Lc, B, R | Encourage the planting of hardy trees and plants suitable for the local environment. |
| MARKETING ACTIVITIES, OPERATION / MAINTENANCE | | | |
| Traffic / Vehicle movements | - Impact on physiological system in terms of increase traffic flow to the area creating noise, dust, and increase safety hazard to local inhabitants. | T, D, Lc, A, R | Dedicated road to the project site will minimize the impact on the local residents. Traffic control (traffic lights, overpass, etc.) should be considered by urban planning authorities to ensure smooth integration of traffic into main trunk road. |
| Solid waste collection | - Solid waste if not properly handled may cause bad odour, pollution, breed rodents and vectors, and create a health hazard | T, D, Lc, B, R | Project to provide proper facilities to handle the solid waste. Coordination with the Municipality on waste collection system to be arrange together with the micro-enterprise contracted to collect the waste for disposal at municipal landfill. |
| Surface water drainage, cleaning / washing water discharge | - The surface water if not properly handled may case flooding and erosion on the site and surrounding areas. | P, D, Lc, A, R | Project design to incorporate waste separation and proper discharge of surface water to the water drainage system running underneath the road. |
| Sewage treatment & discharge | - Major pollutants such as suspended solids, BODs, fecal coliforms, etc. will cause pollution, contamination of ground water, and health problems if not properly treated / handled. | P, D, Lc, A, R | Project to provide sewage treatment facilities to meet the require permissible discharge standards of the Environmental law and regulation. |

表 10-2 環境影響評估—新規卸壳市場 -2/2

| Activity | Potential Impact | Classification | Countermeasures to be Considered |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Market activities - loading / unloading, parking/waiting, packing/sorting, sales of products Maintenance activities of equipment, facilities / building | - These activities will create new jobs and opportunities in the market and surrounding area. These activities will impact on the life-style of the users and beneficiaries of the market. | T, D, Lc, B, R | Opportunities should be given to local inhabitants and people affected (eg. porters in Abasto market) by the relocation of wholesale function. |
| FUTURE INDUCE EFFECTS | | | |
| - Value of the surrounding land | - The location of the project in the sub-urban / rural location will improve the value of the surrounding land. Future value of the land will depend on the future development in the area. | P, I, Lc, B | Land for the project should include enough space for future expansion so that future increase of surrounding land value will not affect the project's expansion plans. |
| - Promote related activities nearby | - Operation of the market will impact indirectly on the surrounding commerce/ activities of the area. Related businesses such as storage, warehouse, workshops, etc. will start up in future creating new job opportunities.. | P, I, Lc, B, R | Future development of the area surrounding the market will need to be considered by the urban planning authorities to conform to the development plans of the city. |
| ABANDONMENT | | | |
| - Notice to close | - This will impact on the jobs and surrounding business associated with the market. Closure of the market will also impact on the value of the land in the area. | P, D, Lc, A, R | In case of closure, alternative use of the facilities must be found to lessen the impact of the closure on the area and people associated with the market. |
| EXTENSION ACTIVITIES | | | |
| - Training / education | - Knowledge empowerment will impact on behavioral changes that may lead to improved quality of life. | P, I, St, B, R | Equity of access to be assured by the user group. |

Legend:

T = Temporary impact

P = Permanent impact

D = Direct impact

I = Indirect impact

R = Reversible Ir = Irreversible

Lc = Local impact

St = Strategic impact

A = Adverse impact

B = Beneficial impact

Note on Classification:

Impact that is Significant, will be further classified into Reversible or Irreversible impacts.

表 11-1 産地集出荷場の事業費

| No. | Items | San Isidro Total (US\$) | Samaipata Total (US\$) | Valle Grande Total (US\$) | Saipina Total (US\$) | Mairana Total (US\$) | Pm. Grande Total (US\$) | Comarapa Total (US\$) | Grand Total (US\$) |
|-----|--------------------------------------------------|-------------------------------|------------------------------|---------------------------------|----------------------------|----------------------------|-------------------------------|-----------------------------|--------------------------|
| 1 | Building Construction Cost | | | | | | | | |
| (1) | Building Reform Works - Direct Construction Cost | 27,043 | 25,291 | 0 | 0 | 0 | 0 | 0 | 52,334 |
| (2) | Building Works - Direct Construction Cost | 0 | 0 | 226,761 | 270,636 | 270,636 | 358,386 | 226,761 | 1,353,180 |
| (3) | External Works | 34,980 | 17,000 | 35,570 | 38,410 | 38,410 | 65,620 | 35,570 | 265,560 |
| (4) | Main Line of Infrastructure in the Site | 0 | 0 | 12,550 | 35,550 | 18,600 | 12,550 | 12,550 | 91,800 |
| (5) | Total Direct Construction Cost | 62,023 | 42,291 | 274,881 | 344,596 | 327,646 | 436,556 | 274,881 | 1,762,874 |
| (6) | Overhead and Profit | 23,569 | 16,071 | 104,455 | 130,946 | 124,505 | 165,891 | 104,455 | 669,892 |
| (7) | Consulting service fee | 3,101 | 2,115 | 13,744 | 17,230 | 16,382 | 21,828 | 13,744 | 88,144 |
| (8) | Grand Total Cost for Building Construction | 88,692 | 60,476 | 393,080 | 492,772 | 468,534 | 624,275 | 393,080 | 2,520,909 |
| 2 | Equipment Procurement Cost | 49,350 | 40,950 | 49,350 | 49,350 | 37,800 | 49,350 | 40,950 | 317,100 |
| | Financial Cost - Grand Total (US\$) | 138,042 | 101,426 | 442,430 | 542,122 | 506,334 | 673,625 | 434,030 | 2,838,009 |
| | Economic Cost - Grand Total (US\$) | 125,799 | 92,883 | 392,808 | 479,760 | 447,673 | 595,804 | 384,632 | 2,519,359 |

Remark:

1. Land acquisition for projected city roads, access road to projected road, and project site is not included in the project cost estimate

表 11-2 新規卸売市場の事業費

| No. | Items | Total Project Cost | | Phase 1 Cost | | Phase 2 Cost | |
|--------------------------------------------------------------|---------------------------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|
| | | Financial Cost (US\$) | Economic Cost (US\$) | Financial Cost (US\$) | Economic Cost (US\$) | Financial Cost (US\$) | Economic Cost (US\$) |
| 1 Land Preparation Cost (Bolivian Side Works) | | | | | | | |
| 1 | Tree Cutting | 595 | 522 | 595 | 522 | 0 | 0 |
| 2 | Land Cut-off | 225,000 | 197,280 | 225,000 | 197,280 | 0 | 0 |
| 3 | Sand Filling | 793,000 | 695,302 | 793,000 | 695,302 | 0 | 0 |
| | - Sub-total | | | | | 0 | 0 |
| 4 | Overhead and Profit | 387,066 | 278,688 | 387,066 | 278,688 | 0 | 0 |
| 5 | Consulting service fee | 50,930 | 22,409 | 50,930 | 22,409 | 0 | 0 |
| 6 | Total Cost | 1,456,591 | 1,194,201 | 1,456,591 | 1,194,201 | 0 | 0 |
| 2 Infrastructure Extension Cost (Bolivian Side Works) | | | | | | | |
| 1 | Electric Main Line | 10,000 | 8,768 | 10,000 | 8,768 | 0 | 0 |
| 2 | Telephone Main Line | 1,000 | 877 | 1,000 | 877 | 0 | 0 |
| 3 | Potable Water Main Line | 150 | 132 | 150 | 132 | 0 | 0 |
| 4 | Potable Water Measure Meter | 824 | 722 | 824 | 722 | 0 | 0 |
| 5 | Access roads (projected city road) | 270,000 | 236,736 | 270,000 | 236,736 | 0 | 0 |
| 6 | Access road to Site | 137,500 | 120,560 | 137,500 | 120,560 | 0 | 0 |
| 7 | Rain drainage ditch | 97,200 | 85,225 | 97,200 | 85,225 | 0 | 0 |
| | Sub-total | | | | | 0 | 0 |
| 8 | Overhead and Profit | 196,336 | 141,362 | 196,336 | 141,362 | 0 | 0 |
| 9 | Consulting service fee | 25,834 | 11,367 | 25,834 | 11,367 | 0 | 0 |
| 10 | Total Cost | 738,844 | 605,749 | 738,844 | 605,749 | 0 | 0 |
| 3 Building Construction Cost | | | | | | | |
| 1 Building Works - Direct Construction Cost | | | | | | | |
| F-1 | Marketing Hall | | | | | | |
| | Marketing Hall - 1 | 4,110,720 | 3,608,521 | 1,027,680 | 902,130 | 3,083,040 | 2,706,391 |
| | Marketing Hall - 2 | 1,618,596 | 1,420,855 | 0 | 0 | 1,618,596 | 1,420,855 |
| F-2 | Administration Office | 1,148,832 | 983,656 | 1,148,832 | 983,656 | 0 | 0 |
| F-3 | Canteen | 507,225 | 431,922 | 507,225 | 431,922 | 0 | 0 |
| F-4 | Shops | 240,472 | 207,414 | 240,472 | 207,414 | 0 | 0 |
| F-5 | Electric Power Station | 336,189 | 294,905 | 336,189 | 294,905 | 0 | 0 |
| F-6 | City Water Reservoir / Elevated Water Tank | 285,184 | 251,035 | 285,184 | 251,035 | 0 | 0 |
| F-7 | Public W.C. | 584,712 | 512,983 | 391,757 | 343,698 | 192,955 | 169,284 |
| F-8 | Wasted Water Treatment / Seepage Pit | 493,500 | 474,222 | 493,500 | 474,222 | 0 | 0 |
| F-9 | Garbage Collection Yard | 57,120 | 50,446 | 28,560 | 25,223 | 28,560 | 25,223 |
| F-10 | Guard Box | 10,030 | 8,350 | 10,030 | 8,350 | 0 | 0 |
| | Sub-total | 9,392,580 | 8,244,308 | 4,469,429 | 3,922,555 | 4,923,151 | 4,321,753 |
| 2 External Works | | | | | | | |
| A | Concrete interlocking block pavement | 1,263,600 | 1,107,924 | 505,440 | 443,170 | 758,160 | 664,755 |
| B | Concrete pavement | 262,400 | 230,072 | 157,440 | 138,043 | 104,960 | 92,029 |
| C | Lawn planting | 21,300 | 18,676 | 10,650 | 9,338 | 10,650 | 9,338 |
| D | Crushed stone pavement | 29,250 | 25,646 | 29,250 | 25,646 | 0 | 0 |
| E | Concrete wall for land adjustment | 70,560 | 61,867 | 70,560 | 61,867 | 0 | 0 |
| F | Concrete drainage ditch | 290,400 | 254,623 | 145,200 | 127,311 | 145,200 | 127,311 |
| G | Gate | 7,500 | 6,576 | 7,500 | 6,576 | 0 | 0 |
| H | Fence | 68,000 | 59,622 | 0 | 0 | 68,000 | 59,622 |
| I | Street lights | 19,200 | 16,512 | 14,400 | 12,384 | 4,800 | 4,128 |
| | Sub-total | 2,032,210 | 1,781,519 | 940,440 | 824,336 | 1,091,770 | 957,183 |
| 3 Main Line of Infrastructure in the Site | | | | | | | |
| A | Electricity Main Line | | | | | | |
| | HV Incoming System | 104,600 | 89,956 | 104,600 | 89,956 | 0 | 0 |
| | Main Feeder System | 244,183 | 209,997 | 97,673 | 83,999 | 146,510 | 125,998 |
| | External Lighting Work | 180,450 | 155,187 | 135,338 | 116,390 | 45,113 | 38,797 |
| | Telephone System | 288,000 | 247,680 | 288,000 | 247,680 | 0 | 0 |
| | Public Address System | 13,950 | 11,997 | 10,463 | 8,998 | 3,488 | 2,999 |
| | Lightning Protection System | 15,300 | 13,158 | 15,300 | 13,158 | 0 | 0 |
| B | City Water Main Line | 57,500 | 49,450 | 23,000 | 19,780 | 34,500 | 29,670 |
| C | Wasted Water Main Line (incl. seepage pipe) | 57,750 | 49,665 | 23,100 | 19,866 | 34,650 | 29,799 |
| | Sub-total | 961,733 | 827,090 | 697,473 | 599,827 | 264,260 | 227,263 |
| 4 Special Equipment | | | | | | | |
| E-1 | Handling Tool | 26,460 | 26,447 | 3,704 | 3,703 | 22,756 | 22,745 |
| E-2 | Telephone/Fax | 11,550 | 11,545 | 11,550 | 11,545 | 0 | 0 |
| E-3 | Computer | 31,500 | 31,485 | 31,500 | 31,485 | 0 | 0 |
| E-4 | Measurement Tool | | | | | | |
| | Truck Scale | 16,485 | 16,477 | 16,485 | 16,477 | 0 | 0 |
| | Balance | 22,050 | 22,040 | 3,087 | 3,086 | 18,963 | 18,954 |
| E-5 | Apparatus for food inspection | 10,500 | 10,495 | 10,500 | 10,495 | 0 | 0 |
| E-6 | High pressure water cleaner | 8,138 | 8,134 | 1,628 | 1,627 | 6,510 | 6,507 |
| | Sub-total | 126,683 | 126,622 | 78,454 | 78,417 | 48,229 | 48,206 |
| 5 | Engineer/Supervisor Dispatch | 14,500 | 14,355 | 4,350 | 4,307 | 10,150 | 10,049 |
| 6 | Total Cost | 12,527,706 | 10,993,895 | 6,190,146 | 5,429,441 | 6,337,559 | 5,564,454 |
| 7 | Overhead and Profit | 2,718,512 | 2,385,675 | 1,343,262 | 1,178,189 | 1,375,250 | 1,207,486 |
| 8 | Consulting service fee | 1,252,771 | 1,099,390 | 619,015 | 542,944 | 633,756 | 556,445 |
| 9 | Grand Total Cost for Building Construction | 16,498,988 | 14,478,960 | 8,152,423 | 7,150,574 | 8,346,566 | 7,328,386 |
| Grand Total Cost (US\$) | | 18,694,423 | 16,278,909 | 10,347,857 | 8,950,524 | 8,346,566 | 7,328,386 |

Remark:

1 Land acquisition cost for projected city roads, access road to projected city road, and project site is not included in the project cost estimate.

表 11-3 産地と消費地の問題点、開発方針および対象プロジェクトのインパクト -1/2

| ISSUES | DEVELOPMENT POLICY | IMPACT OF THE PROJECT (OUTLINE OF DEVELOPMENT PLAN) | POSITIVE AND NEGATIVE IMPACT FOR EACH TARGET GROUP | | | | | | | | | | | | | | | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------|-----------------------------------------------------------------------------------|-----------|------|----------|------|----------|------|-------------|------|---|---|---|---|---|---|---|
| | | | FARMER | | INTERMEDIARY | | WHOLESALE | | RETAILER | | CONSUMER | | TRANSPORTER | | | | | | | | |
| | | | POS. | NEG. | POS. | NEG. | POS. | NEG. | POS. | NEG. | POS. | NEG. | POS. | NEG. | | | | | | | |
| I. ISSUES IN THE PRODUCTION SITE | | | DEVELOPMENT POLICY FOR THE PRODUCTION AREA | | | ESTABLISHMENT OF COLLECTION AND DISTRIBUTION CENTER IN THE PRODUCTION AREA | | | | | | | | | | | | | | | |
| (1) ISSUES REGARDING PRODUCTION | | | (1) TECHNICAL IMPROVEMENT IN THE PRODUCTION SYSTEM | | | | | | | | | | | | | | | | | | |
| 1) Stagnant productivity and difficulty in production adjustment | 1) Strengthening technical / guidance system | Merit: • Strengthening of technical guidance under the Project will raise the income of the farmers as well as other beneficiaries through improvement of productivity, quality and reduction of post harvest losses. | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | |
| 2) Stagnant harvest volume, late introduction of crop rotation, low-level technology of fruit production | 2) Introduction of production planning with consideration of demand and production trend in other areas | | | | | | | | | | | | | | | | | | | | |
| 3) Pest damage, increase in agricultural chemicals (growing discrepancy from consumers' awareness on product quality: Supermarkets are purchasing organic produce from farmers) | | | | | | | | | | | | | | | | | | | | | |
| 4) Inadequate system of technology introduction and extension | | | | | | | | | | | | | | | | | | | | | |
| 5) Declining competitiveness against other production areas of the country (Lowland within the prefecture and outside the prefecture) and neighboring countries including MERCOSUR | | | | | | | | | | | | | | | | | | | | | |
| 6) Underdevelopment of planned production system and loss from consequent overproduction | | | | | | | | | | | | | | | | | | | | | |
| (2) ISSUES REGARDING COLLECTION / DISTRIBUTION AND TRANSPORTATION | | | (2) Development of collection and distribution centers to improve collection and distribution system and establish cooperative marketing system | | | | | | | | | | | | | | | | | | |
| 1) Maintaining traditional systems of collection/distribution, selection and packing of products (based on individual experiences of farmers) | 1) Disseminating the benefits / significance of its introduction | Merit: • Farmers benefit from promoting their price bargaining power, advancing commercialization, more stable prices, and saving cost and time. • With the improvement of utility in the new wholesale market and existing Abasto market, the Center will benefit farmers as: (1) collection and distribution depot of agricultural cooperatives' wholesaling, (2) collection and distribution depot of wholesale division of supermarkets, (3) efficient fruit and vegetable providing site to farmers' direct sales spot and wholesalers. | ○ | | ○ | | | ○ | | ○ | | | | | | | | | | | |
| 2) Non-use of existing collection centers (from lack of consensus, lack of leading farmers, and/or indistinct merit for users) | 2) Raise the awareness through pilot project operation. | Demerit: • Farmers may be adversely affected by the loss of opportunity to engage in direct sales by joining cooperative collection and distribution. | | | | | | | | ○ | | | | | | | | | | | |
| 3) Time loss resulting from lack of facilities such as collection center, cold storage, etc. | 3) Stage-wise development of collection & distribution centers | | | | | | | | | | | | | | | | | | | | |
| 4) Unstable system of remuneration for market price fluctuation and inefficient bargaining power of farmers | 4) Technology transfer through model collection and distribution system (pilot project) | | | | | | | | | | | | | | | | | | | | |
| 5) Difficulty in collection and distribution arrangement caused by lack of access to information on market trend and prices | | | | | | | | | | | | | | | | | | | | | |
| 6) High share of transportation fee in the wholesale price and farmers' direct sales price, resulting in lowering the farmgate price and margins. | | | | | | | | | | | | | | | | | | | | | |
| 7) Underdevelopment of distribution system of citrus fruits increasingly produced in lowlands | | | | | | | | | | | | | | | | | | | | | |
| (3) ISSUES REGARDING LAW/INSTITUTION/ ORGANIZATION | | | (3) Strengthening of institutional guidance, instruction and extension of agricultural organization (aiming at collection and distribution) | | | | | | | | | | | | | | | | | | |
| 1) Inefficient agricultural organizations and inadequate leadership | | Merit: • When it is fully implemented, well-controlled collection and distribution system will be realized. | ○ | | ○ | | ○ | | | | | | | | | | | | | | |
| 2) Insufficient experience in cooperative collection and distribution | | | | | | | | | | | | | | | | | | | | | |
| 3) Insufficient collective/ cooperative system among producers, producers' organizations (e.g., ASOFRUT), transporters and local governments | | Demerit: • Accustomed individual trading method may be dispensed with for collective rules. | | | | | | | | ○ | | | | | | | | | | | |
| (4) FINANCE SOURCES | | | (4) Development of sound and appropriate credit system and its dissemination to farmers | | | | | | | | | | | | | | | | | | |
| 1) Difficulty in accessing to formal credit systems for small-scale farmers' insufficient capital to qualify | | Demerit: • Participants are expected to bear some fee corresponding to benefit | | | | | | | | ○ | | | | | | | | | | | |
| 2) Deficiency in capital for project investment and operation due to difficulty in accessing to local government's financial sources | | | | | | | | | | | | | | | | | | | | | |
| ISSUES IN THE CONSUMPTION SITE | | | DEVELOPMENT POLICY FOR THE CONSUMPTION AREA | | | ESTABLISHMENT OF THE NEW WHOLESALE MARKET IN THE CONSUMPTION AREA | | | | | | | | | | | | | | | |
| (1) SCALE OF CONSUMPTION AND MARKETING | | | (1) Commercialization of fruits and vegetables corresponding to consumers request (supply volume, quality, and price) | | | | | | | | | | | | | | | | | | |
| Intra-prefectural production unable to respond to the rapid population growth of Santa Cruz City and expanding needs for higher quality products | | Merit: • With the promotion of commercialization, the farmers can expect income increase through production that suits the demand. Consumers will benefit from stable supply and higher quality of fruits and vegetables. | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ | | ○ |

Remark: ○ Direct, ○ Indirect

表 11-3 産地と消費地の問題点、開発方針および対象プロジェクトのインパクト -2/2

| ISSUES | DEVELOPMENT POLICY | IMPACT OF THE PROJECT (OUTLINE OF DEVELOPMENT PLAN) | POSITIVE AND NEGATIVE IMPACT FOR EACH TARGET GROUP | | | | | | | | | | | | | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------|--------------|------|-----------|------|----------|------|----------|------|-------------|------|--|--|--|--|
| | | | FARMER | | INTERMEDIARY | | WHOLESALE | | RETAILER | | CONSUMER | | TRANSPORTER | | | | | |
| | | | POS. | NEG. | POS. | NEG. | POS. | NEG. | POS. | NEG. | POS. | NEG. | POS. | NEG. | | | | |
| (2) MARKETING SYSTEM | | | | | | | | | | | | | | | | | | |
| 1) Increase of marketing volume bypassing Abasto market (ascribed to the emergence of supermarkets, who, however are interested in buying products from the market) | (2) Increasing benefits of the target group through separating and relocating wholesale function (farmers' direct sales, employment of small-scale intermediaries, efficient wholesalers and retailers, and users' benefits); the combined effect of the new wholesale market and existing Abasto market concentrating on retailing. | Merit: • Wholesalers in the new wholesale market (large-scale wholesalers relocating from Abasto market, wholesalers' groups organized to meet the qualifications, farmers and wholesale division of supermarkets newly participating in wholesale activities) will increase their income through improving their management. • At the existing Abasto market after wholesalers' relocation, the target group who mainly engage in retail activities will further their benefit in use of the market, farmers will be able to revive their direct sale function, more intermediaries can join, retailers will improve their sales efficiency, and consumers will benefit from efficient shopping. • Living environment of existing Abasto market will improve. Demerit: • Surrounding environment of the new wholesale market will deteriorate. | ○ | | | | ○ | | ○ | | | | | | | | | |
| 2) Restricted truck accommodation capacity of existing Abasto market accompanied by the increase in distance covered and loading volume of trucks as fruit and vegetable marketing area expands | | | | | | | | | | | | | | | | | | |
| 3) Emergence of intermediaries in Abasto market in the place of farmers, raising marketing cost | | | | | | | | | | | | | | | | | | |
| 4) Retail function is prevailing over wholesale operation in Abasto after the issue of Decentralization Law | | | | | | | | | | | | | | | | | | |
| 5) Price formulation mechanism: The unstable employment situation in the informal sector coupled with the low purchasing power of the ordinary consumers acts to restrain the retail price fluctuation range. | | | | | | | | | | | | | | | | | | |
| 6) Fruit and vegetable quality control: inadequate standards of packing materials and its manufacturing cost | | | | | | | | | | | | | | | | | | |
| 7) International metric system shall be adopted for trade of fruit and vegetable. | | | | | | | | | | | | | | | | | | |
| (3) MERCOSUR | | | | | | | | | | | | | | | | | | |
| Rapid increase of cheap imports not statistically recorded and lack of import control | (3) Raise the awareness on quality improvement, safety aspects, and develop quality improvement and safety certification system | Merit: • Farmers and consumers will directly benefit from the new market. It is expected that coordination between collection/distribution center and the new wholesale market will develop in order to offer high quality and stable supply of products and to be competitive in the international market. | ○ | | | | | ○ | | | | | | | | | | |
| (4) QUALIFICATION FOR PARTICIPATING IN THE NEW WHOLESALE MARKET | | | | | | | | | | | | | | | | | | |
| 1) Wholesalers qualified to relocate from Abasto: Only 33% of wholesalers in Abasto are qualified by the criteria set in this project (who handle half of total traded fruit and vegetable volume in Abasto) | (4) Modernization/ rationalization of the wholesale function and provision of equitable opportunities for wholesalers | Merit: • Among small-scale farmers in the Valley areas, those who have the intention to participate in wholesale activities are able to qualify by organizing themselves, which may bring them higher income. Large-scale farmers of lowlands can curtail marketing cost by conducting wholesaling in the new market. Large scale wholesalers can also increase their income by organizing themselves. Supermarkets can save collection cost by establishing their wholesale division in the new wholesale market instead of individually building collection depot. | ○ | | | | | ○ | | ○ | | | | | | | | |
| 2) Unqualified wholesalers: The remaining 67%, who are trading in smaller volumes maybe qualified through collective re-organization | | | | | | | | | | | | | | | | | | |
| 3) Potential future participants: small-scale farmers in the Valley areas, large-scale farmers in lowland and wholesale division of supermarkets | | | | | | | | | | | | | | | | | | |
| (5) SOCIO-ECONOMY | | | | | | | | | | | | | | | | | | |
| 1) Income differential between wholesalers and retailers | (5) Formalization of informal employment in existing Abasto market by establishment of the new wholesale market | Merit: • Small-scale intermediaries (mostly women) can expect to improve their access to the existing Abasto market. | ○ | | | | | ○ | | ○ | | | | | | | | |
| 2) Securing employment opportunities for retailers | | | | | | | | | | | | | | | | | | |
| 3) Limited opportunities for new intermediaries | | | | | | | | | | | | | | | | | | |
| (6) ABASTO MARKET MANAGEMENT | | | | | | | | | | | | | | | | | | |
| 1) Confusion over laws and regulations: Farmers' Market founded upon MACA Law and Municipal Market upon municipal act. | (6) Establishing feasible and controllable laws and regulations and management system | Merit: • All target groups using the new wholesale market and existing Abasto market will be able to benefit from orderly use of the market that reduces time and cost. | ○ | | | | | ○ | | ○ | | | | | | | | |
| 2) Confusion over management system: Dissolution of the management committee and disorganized management caused by disintegration of the component bodies. | | | | | | | | | | | | | | | | | | |
| 3) Confusion over user system: Use of market by unorganized wholesalers, retailers, intermediaries, farmers in direct trading, and consumers | | | | | | | | | | | | | | | | | | |
| 4) Confusion over market maintenance: Discrepancy between municipal acts and its implementation (only part of maintenance activities are conducted) | | | | | | | | | | | | | | | | | | |
| (7) FINANCE SOURCES | | | | | | | | | | | | | | | | | | |
| 1) Disagreement over the use of municipal financial sources within the Municipal Council | (7) Identifying fund procurement method through consensus in the Prefecture and Municipal Councils (based upon the results of feasibility study of the Project) | Demerit: • Each target group is expected to bear some fee corresponding to the benefit they receive. | | | | | | ○ | | ○ | | | | | | | | |
| 2) Consensus to be obtained among related organizations regarding distribution of investment funds of the new wholesale market (procuring from the Prefecture, Municipal, users, and/or external sources) | | | | | | | | | | | | | | | | | | |

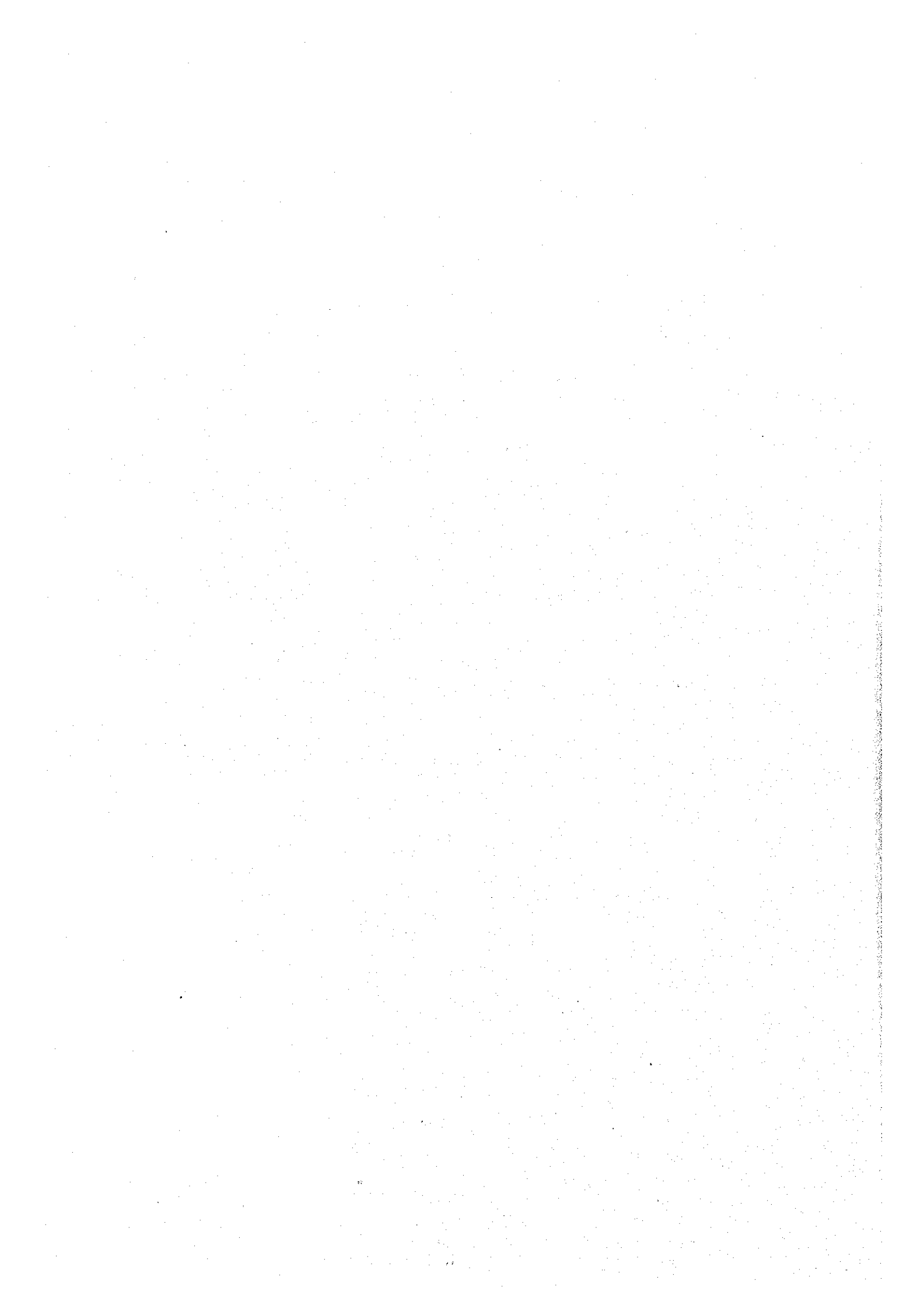


表 11-4 便益の概要

| Benefit Items | Quantity | Unit:Bs/ year (1998) | US\$/year 2002 | US\$/year 2010 |
|-------------------------------------------------------------------------------------------------------------------------------|--------------|-------------------------|-------------------|-------------------|
| 1 City Entry Time Restriction | | | | |
| A = no. of trucks over 10t having to wait for nighttime to enter city limits | 13 | | | |
| B = average waiting time lost due to this restriction (hr) | 5 | | | |
| C = opportunity cost of truck use (Bs/hr) | 20 | | | |
| Total benefit of entry at any time to NWM = A.B.C | Bs1,300 /day | Bs474,500 | \$91,772 | \$121,140 |
| 2 Space Restriction Inside Abasto Market | | | | |
| A = no. of trucks forced to wait outside the market with their products until parking space is available inside Abasto market | 36 | | | |
| B = average waiting time lost due to this restriction (hr) | 9.3 | | | |
| C1 = opportunity cost of truck use (Bs/hr) | 20 | | | |
| B2a, Benefit of space availability at any time at NWM = A.B.C | Bs6,696 /day | Bs2,444,040 | \$472,698 | \$623,962 |
| A = no. selling produce from truck | 12 | | | |
| B = time lost due to the method of sale from truck (hr) | 19 | | | |
| C = opportunity cost of truck use (Bs/hr) | 20 | | | |
| B2b, Benefit of immediate unloading for transporter = A.B.C | Bs4,560 /day | Bs1,664,400 | \$321,909 | \$424,920 |
| D = no. of producers/intermediaries affected | 12 | | | |
| E = producers'/intermediaries' time lost by engaging in selling from truck (hr) | 228 | | | |
| F = opportunity cost of producers/intermediaries (Bs/hr) | 4 | | | |
| B2c, Benefit of immediate unloading for producers/intermediaries = D.E.F | Bs912 /day | Bs332,880 | \$64,382 | \$84,984 |
| Total benefit of space restriction inside Abasto Market = | | Bs4,441,320 | \$858,990 | \$1,133,866 |
| 3 Selling from truck outside Abasto Market | | | | |
| A = no. of trucks affected | 14 | | | |
| B = time lost due to the method of sale from truck (hr) | 12 | | | |
| C = opportunity cost of truck use (Bs/hr) | 20 | | | |
| B3a, Benefit of immediate unloading for transporter = A.B.C | Bs3,360 /day | Bs1,226,400 | \$237,196 | \$313,099 |
| A = no. of trucks affected | 14 | | | |
| T = Tonnage sold outside market (assume average 10 t truck) | 140 | | | |
| C2 = Additional Cost of handling (include parking fee, porter fee) per ton | 30 | | | |
| B3b, Benefit of reduce handling cost for producer/wholesaler = T.C2 | Bs4,200 /day | Bs1,533,000 | \$296,495 | \$391,374 |
| D = no. of producers/intermediaries affected | 14 | | | |
| E = producers'/intermediaries' time lost by engaging in selling from truck (hr) | 336 | | | |
| F = opportunity cost of producers/intermediaries (Bs/hr) | 4 | | | |
| B3c, Benefit of immediate unloading for producers/intermediaries = D.E.F | Bs1,344 /day | Bs490,560 | \$94,879 | \$125,240 |
| Total benefit of not selling from truck = | | Bs3,249,960 | \$628,570 | \$829,713 |
| 4 Reduction of Quality Loss (Value Loss) for Tomato | | | | |
| A = Minimum price at peak over-supply (Bs/kg) | 1.00 | | | |
| B = Tonnage thrown away per week during over-supply (t) | 4 | | | |
| C = No. of times in a year that experience over supply | 24 | | | |
| D = Tonnage affected by over-supply condition (t) | 96 | | | |
| B4, Benefit of Quality loss = D.A | Bs96,000 | Bs96,000 | \$19,790 | \$25,745 |
| 5 Consumer time savings | | | | |
| A = av. time saved per person per trip due to less congestion (minutes) | 10 | | | |
| B = no. of families affected (2000) | 205,036 | | | |
| C = no. of families affected (2010) | 360,254 | | | |
| D1 = person days saved (2000) | 76,889 | | | |
| D2 = person days saved (2010) | 135,095 | | | |
| E = opportunity cost of consumer day (Bs/day) | 10 | | | |
| Total benefit of time saved (year 2000) | Bs768,885 | | \$145,144 | \$240,383 |
| 6 Production Increase | | | | |
| A = Increase production volume by products (t) | | | | |
| B = Price of products (70% of net producer's prices) | | | | |
| Total benefit of Production Increase = A.B | | | | \$1,623,559 |
| 7 Commercialization Rate Increase | | | | |
| A = Volume increase due to commercialization rate increase by products (t) | | | | |
| B = Price of products (50% of net producer's prices) | | | | |
| Total benefit of Commercialization Rate increase = A.B | | | | \$469,290 |

Assumptions:

- Number of trucks affected is based on survey conducted during Phase 1 and 2.
- Yearly truck projection based on marketing volume projection.
- Increase in production volume is based on projections in Annexe 2.
- Projection of commercialization rate increase based on data in Annexe 2.
- Net Producer's Prices of products: Potato US\$220, Tomato US\$135, Lettuce US\$100, Choclo US\$285, Green Pepper US\$205
Beans/Peas US\$435, Peach/Plum US\$420, Citrus US\$135.
- Consumer time saving and number of families affected based on Master Plan data.
- Tonnage of tomatoes thrown away and frequency of over-supply based on interview survey of wholesalers at Abasto Market.
- Exchange rate of Bs5.62 to 1US\$ (Nov. 1998)

表 12-1 計画施設・機材の耐用年数、減価償却費および維持管理費

New Wholesale Market

| Facilities & Equipment | Physical Life (years) | Maintenance ratio (%) | Total Cost | Depreciation | Maintenance | Reinvestment Cost | | | |
|------------------------|--------------------------|--------------------------|-------------------|----------------|---------------|-------------------|---------------|---------------|---------------|
| | | | | | | 5 yr | 10 yr | 15 yr | 20 yr |
| 1. Buildings | 30 | 0.5% | 14,768,755 | 319,990 | 47,998 | | | | |
| 2. Equipment | | | | | | | | | |
| - Tel/fax | 5 | 5.0% | 11,550 | 1,502 | 375 | 7,508 | 7,508 | 7,508 | 7,508 |
| - Truck scale | 10 | 5.0% | 16,485 | 1,072 | 536 | | 10,715 | | 10,715 |
| - Jet cleaner | 10 | 5.0% | 8,138 | 529 | 264 | | 5,290 | | 5,290 |
| - Computers, etc. | 5 | 5.0% | 31,500 | 4,095 | 1,024 | 20,475 | 20,475 | 20,475 | 20,475 |
| - Weighing scale | 10 | 5.0% | 22,050 | 1,433 | 717 | | 14,333 | | 14,333 |
| - Handling tool (cart) | 5 | 2.0% | 26,460 | 3,440 | 344 | 17,199 | 17,199 | 17,199 | 17,199 |
| - Furniture | 15 | 2.0% | 48,300 | 2,093 | 628 | | | 31,395 | |
| - Laboratory equipment | 5 | 5.0% | 10,500 | 1,365 | 341 | 6,825 | 6,825 | 6,825 | 6,825 |
| 3. Pavement | 25 | 0.5% | 1,555,250 | 40,437 | 5,055 | | | | |
| Total Cost | | | 16,498,988 | 375,954 | 57,282 | 52,007 | 82,344 | 83,402 | 82,344 |

Remarks:

1. Total cost of facilities & equipment excludes Bolivian side investment in land preparation and infrastructure extension cost.
2. Depreciation, Maintenance and Reinvestment costs are calculated based on 65% of Total Cost assuming depreciation, maintenance & reinvestment are undertaken at local prices by local contractors/suppliers.

Collection and Distribution Centers

| Facilities & Equipment | Physical Life (years) | Maintenance ratio (%) | Total Cost | Depreciation | Maintenance | Reinvestment Cost | |
|---------------------------|--------------------------|--------------------------|------------------|----------------|---------------|-------------------|----------------|
| | | | | | | 10 yr | 20 yr |
| 1. Buildings & pavement | 25 | 0.5% | 2,502,009 | 100,080 | 12,510 | | |
| 2. Equipment | | | | | | | |
| - Furniture and computer | 10 | 5.0% | 131,250 | 13,125 | 6,563 | 131,250 | 131,250 |
| - Vehicle (pick up truck) | 10 | 5.0% | 151,200 | 15,120 | 7,560 | 151,200 | 151,200 |
| - Motorcycle | 10 | 5.0% | 53,550 | 5,355 | 2,678 | 53,550 | 53,550 |
| Total Cost | | | 2,838,009 | 133,680 | 29,310 | 336,000 | 336,000 |

Remarks:

1. Depreciation, maintenance, and reinvestment cost are staggered due to staged wise development of the C/D Centers.

表 12-2 経済的内部収益率の概要

| | | Base Case | Case 1 | Case 2 | Case 3 | Case 4 |
|--------------|-----------------|-----------|------------|-----------|-----------|------------|
| Scenario I | Investment Cost | no change | +10% | ±0% | -10% | ±0% |
| | Benefit | no change | ±0% | +10% | ±0% | -10% |
| | EIRR % | 9.7 | 9.0 | 11.7 | 10.4 | 7.4 |
| | NPV (US\$) | -460,000 | -618,000 | -73,000 | -302,000 | -846,000 |
| Scenario II | Investment Cost | no change | +10% | ±0% | -10% | ±0% |
| | Benefit | no change | ±0% | +10% | ±0% | -10% |
| | EIRR % | 11.8 | 10.5 | 13.4 | 13.5 | 10.2 |
| | NPV (US\$) | -222,000 | -1,611,000 | 1,221,000 | 1,167,000 | -1,665,000 |
| Scenario III | Investment Cost | no change | +10% | ±0% | -10% | ±0% |
| | Benefit | no change | ±0% | +10% | ±0% | -10% |
| | EIRR % | 12.6 | 11.0 | 14.2 | 14.4 | 10.9 |
| | NPV (US\$) | 513,000 | -1,100,000 | 2,177,000 | 2,126,000 | -1,152,000 |

表 12-3 財務的内部収益率の概要

| | | Base Case | Case 1 | Case 2 | Case 3 | Case 4 |
|--------------|-----------------|------------|------------|------------|------------|------------|
| Scenario I | Investment Cost | no change | +10% | ±0% | -10% | ±0% |
| | Benefit | no change | ±0% | +10% | ±0% | -10% |
| | FIRR % | -2.2 | -3.1 | -1.2 | -1.2 | -3.2 |
| | NPV (US\$) | -1,498,000 | -1,696,000 | -1,437,000 | -1,293,000 | -1,559,000 |
| Scenario II | Investment Cost | no change | +10% | ±0% | -10% | ±0% |
| | Benefit | no change | ±0% | +10% | ±0% | -10% |
| | FIRR % | 7.7 | 6.6 | 8.9 | 9.0 | 6.5 |
| | NPV (US\$) | -3,956,000 | -5,355,000 | -2,953,000 | -2,557,000 | -4,959,000 |
| Scenario III | Investment Cost | no change | +10% | ±0% | -10% | ±0% |
| | Benefit | no change | ±0% | +10% | ±0% | -10% |
| | FIRR % | 6.6 | 5.5 | 7.7 | 7.8 | 5.4 |
| | NPV (US\$) | -4,511,000 | -5,806,000 | -3,666,000 | -3,216,000 | -5,356,000 |

Remarks:

1. Scenario I evaluation assumes Collection and Distribution centers operate only.
2. Scenario II evaluation assumes New Wholesale Market operates only.
3. Scenario III evaluation assumes Collection and Distribution Centers operate in conjunction with NWM.
4. Net Present Value based on social discount rate of 12.07%, and rounded up to nearest thousand.

表 12-4 全産地集出荷場の損益計算書およびキャッシュ・フロー

Unit: US\$

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| I Income Statement | | | | | | | | | | | |
| A. Revenue | | 62,500 | 83,400 | 246,000 | 453,900 | 600,600 | 762,800 | 888,700 | 1,020,200 | 1,100,400 | 1,115,900 |
| 1) User fee | | 62,500 | 83,400 | 246,000 | 453,900 | 600,600 | 762,800 | 888,700 | 1,020,200 | 1,100,400 | 1,115,900 |
| B. Expense | | 89,300 | 99,400 | 362,000 | 628,700 | 723,100 | 841,100 | 910,400 | 992,900 | 1,052,000 | 1,057,500 |
| 1) Operation & management | | 73,100 | 83,200 | 288,900 | 497,200 | 591,600 | 709,600 | 778,900 | 861,400 | 920,500 | 926,000 |
| 2) Depreciation | | 16,200 | 16,200 | 73,100 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 |
| 3) Interest | | | | | | | | | | | |
| C. Income before Depr.&Interest | | -10,600 | 200 | -42,900 | -43,300 | 9,000 | 53,200 | 109,800 | 158,800 | 179,900 | 189,900 |
| D. Net Income | | -26,800 | -16,000 | -116,000 | -174,800 | -122,500 | -78,300 | -21,700 | 27,300 | 48,400 | 58,400 |
| II Cash Flow | | | | | | | | | | | |
| A. Source of Funds | 138,042 | -10,600 | 1,086,178 | 1,571,089 | -43,300 | 9,000 | 53,200 | 109,800 | 158,800 | 179,900 | 189,900 |
| 1) Government | 138,042 | | 1,085,978 | 1,613,989 | | | | | | | |
| 2) Loan | | | | | | | | | | | |
| 3) Own equity | | | | | | | | | | | |
| 4) Depreciation | | 16,200 | 16,200 | 73,100 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 |
| 5) Net income | | -26,800 | -16,000 | -116,000 | -174,800 | -122,500 | -78,300 | -21,700 | 27,300 | 48,400 | 58,400 |
| B. Uses of Funds | 138,042 | | 1,085,978 | 1,613,989 | | | | | | | 21,000 |
| 1) Building | 138,042 | | 1,085,978 | 1,613,989 | | | | | | | |
| 2) Equipment | | | | | | | | | | | |
| 3) Reinvestment | | | | | | | | | | | 21,000 |
| 4) Repayment of loan | | | | | | | | | | | |
| C. Net cash flow | | -10,600 | 200 | -42,900 | -43,300 | 9,000 | 53,200 | 109,800 | 158,800 | 179,900 | 168,900 |
| | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | | |
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | | |
| I Income Statement | | | | | | | | | | | |
| A. Revenue | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | |
| 1) User fee | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | |
| B. Expense | 1,057,500 | 1,057,500 | 1,057,500 | 1,057,500 | 1,057,500 | 1,057,500 | 1,057,500 | 1,057,500 | 1,057,500 | 1,057,500 | |
| 1) Operation & management | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | |
| 2) Depreciation | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | |
| 3) Interest | | | | | | | | | | | |
| C. Income before Depr.&Interest | 189,900 | 189,900 | 189,900 | 189,900 | 189,900 | 189,900 | 189,900 | 189,900 | 189,900 | 189,900 | |
| D. Net Income | 58,400 | 58,400 | 58,400 | 58,400 | 58,400 | 58,400 | 58,400 | 58,400 | 58,400 | 58,400 | |
| II Cash Flow | | | | | | | | | | | |
| A. Source of Funds | 189,900 | 189,900 | 189,900 | 189,900 | 189,900 | 189,900 | 189,900 | 189,900 | 189,900 | 189,900 | |
| 1) Government | | | | | | | | | | | |
| 2) Loan | | | | | | | | | | | |
| 3) Own equity | | | | | | | | | | | |
| 4) Depreciation | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | |
| 5) Net income | 58,400 | 58,400 | 58,400 | 58,400 | 58,400 | 58,400 | 58,400 | 58,400 | 58,400 | 58,400 | |
| B. Uses of Funds | 25,200 | 57,800 | 131,400 | 72,500 | 6,400 | 3,200 | | | | | |
| 1) Building | | | | | | | | | | | |
| 2) Equipment | | | | | | | | | | | |
| 3) Reinvestment | 25,200 | 57,800 | 131,400 | 72,500 | 6,400 | 3,200 | | | | | |
| 4) Repayment of loan | | | | | | | | | | | |
| C. Net cash flow | 164,700 | 132,100 | 58,500 | 117,400 | 183,500 | 186,700 | 189,900 | 189,900 | 189,900 | 189,900 | |

Remarks:

1. Institutional training and technology transfer cost to be borne by Government separately and not included in this financial analysis of management body.

表 12-5 新規卸売市場の年間運営費

| Number of Personnel and Annual Cost | | | | | | | | |
|-------------------------------------|-----------|-----------|-------------|----------|----------------|----------------|----------------|-------------------|
| Position | Status | | Unit Salary | | Annual Salary | | Total Annual | Total Annual |
| | Permanent | Contract | Permanent | Contract | Permanent | Contract | Salary (Bs) | Salary (US\$) |
| Manager | 1 | | 5,000 | | 60,000 | | 60,000 | 10,676 |
| Administrative chief | 1 | | 3,000 | | 36,000 | | 36,000 | 6,406 |
| Marketing chief | 1 | | 3,000 | | 36,000 | | 36,000 | 6,406 |
| Secretary | 1 | | 2,000 | | 24,000 | | 24,000 | 4,270 |
| Security control | 1 | 5 | 2,000 | 1,500 | 24,000 | 90,000 | 114,000 | 20,285 |
| Finance & account | | 2 | 2,000 | 1,500 | | 36,000 | 36,000 | 6,406 |
| Personnel & registration | 1 | 1 | 2,000 | 1,500 | 24,000 | 18,000 | 42,000 | 7,473 |
| Maintenance | 1 | | 2,000 | 1,500 | 24,000 | | 24,000 | 4,270 |
| Information | 1 | 2 | 2,000 | 1,500 | 24,000 | 36,000 | 60,000 | 10,676 |
| Monitoring | | 1 | 2,000 | 1,500 | | 18,000 | 18,000 | 3,203 |
| Total | 8 | 11 | | | 252,000 | 198,000 | 450,000 | \$80,071 A |

| Electricity & Water Charges | |
|--------------------------------------|------------|
| Electricity & Water charges per day | Bs820 |
| Electricity & Water charges per day | \$146 |
| Electricity & Water charges per year | \$53,256 B |

| Tel/fax | |
|------------------------|---------|
| No. of calls per month | 900 |
| Charges per month | \$13 |
| Charges per year | \$161 C |

| | |
|---------------------------------------------|------------------|
| Total Annual Operation Cost (A+B+C) | \$133,488 |
| Total Annual Economic Operation Cost | \$71,833 |

表 12-6 新規卸売市場の損益計算書およびキャッシュ・フロー

Unit: US\$

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| I Income Statement | | | | | | | | | | | |
| A. Revenue | 759,771 | 1,480,165 | 1,527,398 | 1,574,631 | 1,637,700 | 1,700,769 | 1,763,839 | 1,826,908 | 1,889,977 | 1,953,047 | |
| 1) Net income of wholesalers | 728,414 | 1,456,827 | 1,503,322 | 1,549,816 | 1,611,809 | 1,673,801 | 1,735,794 | 1,797,787 | 1,859,779 | 1,921,772 | |
| 2) Entering truck charge | 11,357 | 23,338 | 24,076 | 24,815 | 25,891 | 26,968 | 28,045 | 29,121 | 30,198 | 31,274 | |
| B. Expense | 283,362 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | |
| 1) Operation | 66,744 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | |
| 2) Maintenance | 28,641 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | |
| 3) Depreciation | 187,977 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | |
| 4) Interest | | | | | | | | | | | |
| C. Income before Depr. & Interest | 644,386 | 1,289,395 | 1,336,628 | 1,383,861 | 1,446,930 | 1,509,999 | 1,573,069 | 1,636,138 | 1,699,207 | 1,762,276 | |
| D. Net Income | 456,408 | 913,441 | 960,674 | 1,007,907 | 1,070,976 | 1,134,045 | 1,197,114 | 1,260,184 | 1,323,253 | 1,386,322 | |
| II Cash Flow | | | | | | | | | | | |
| A. Source of Funds | 8,152,423 | 8,990,952 | 1,289,395 | 1,336,628 | 1,383,861 | 1,446,930 | 1,509,999 | 1,573,069 | 1,636,138 | 1,699,207 | 1,762,276 |
| 1) Government | 8,152,423 | 8,346,566 | | | | | | | | | |
| 2) Loan | | | | | | | | | | | |
| 3) Own equity | | | | | | | | | | | |
| 4) Depreciation | | 187,977 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | |
| 5) Net income | | 456,408 | 913,441 | 960,674 | 1,007,907 | 1,070,976 | 1,134,045 | 1,197,114 | 1,260,184 | 1,323,253 | 1,386,322 |
| B. Uses of Funds | 8,152,423 | 8,346,566 | | | | 52,007 | | | | | 82,344 |
| 1) Building | 8,073,969 | 8,298,337 | | | | | | | | | |
| 2) Equipment | 78,454 | 48,229 | | | | | | | | | |
| 3) Reinvestment | | | | | | 52,007 | | | | | 82,344 |
| 4) Repayment of loan | | | | | | | | | | | |
| C. Net cash flow | | 644,386 | 1,289,395 | 1,336,628 | 1,383,861 | 1,394,924 | 1,509,999 | 1,573,069 | 1,636,138 | 1,699,207 | 1,679,932 |

| | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| I Income Statement | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| A. Revenue | 2,016,116 | 2,079,185 | 2,142,254 | 2,205,324 | 2,268,393 | 2,331,462 | 2,394,531 | 2,457,601 | 2,520,670 | 2,583,739 |
| 1) Net income of wholesalers | 1,983,765 | 2,045,757 | 2,107,750 | 2,169,743 | 2,231,735 | 2,293,728 | 2,355,721 | 2,417,713 | 2,479,706 | 2,541,699 |
| 2) Entering truck charge | 32,351 | 33,428 | 34,504 | 35,581 | 36,658 | 37,734 | 38,811 | 39,887 | 40,964 | 42,041 |
| B. Expense | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 | 566,724 |
| 1) Operation | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 |
| 2) Maintenance | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 |
| 3) Depreciation | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 |
| 4) Interest | | | | | | | | | | |
| C. Income before Depr. & Interest | 1,825,346 | 1,888,415 | 1,951,484 | 2,014,553 | 2,077,623 | 2,140,692 | 2,203,761 | 2,266,831 | 2,329,900 | 2,392,969 |
| D. Net Income | 1,449,391 | 1,512,461 | 1,575,530 | 1,638,599 | 1,701,668 | 1,764,738 | 1,827,807 | 1,890,876 | 1,953,946 | 2,017,015 |
| II Cash Flow | | | | | | | | | | |
| A. Source of Funds | 1,825,346 | 1,888,415 | 1,951,484 | 2,014,553 | 2,077,623 | 2,140,692 | 2,203,761 | 2,266,831 | 2,329,900 | 2,392,969 |
| 1) Government | | | | | | | | | | |
| 2) Loan | | | | | | | | | | |
| 3) Own equity | | | | | | | | | | |
| 4) Depreciation | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 |
| 5) Net income | 1,449,391 | 1,512,461 | 1,575,530 | 1,638,599 | 1,701,668 | 1,764,738 | 1,827,807 | 1,890,876 | 1,953,946 | 2,017,015 |
| B. Uses of Funds | | | | | 83,402 | | | | | 82,344 |
| 1) Building | | | | | | | | | | |
| 2) Equipment | | | | | | | | | | |
| 3) Reinvestment | | | | | 83,402 | | | | | 82,344 |
| 4) Repayment of loan | | | | | | | | | | |
| C. Net cash flow | 1,825,346 | 1,888,415 | 1,951,484 | 2,014,553 | 1,994,221 | 2,140,692 | 2,203,761 | 2,266,831 | 2,329,900 | 2,310,625 |

Remarks:

1. Revenue and Expenses during the 1st year of operation will be approximately half of normal years operation due to phased construction.
2. Net income of wholesalers based on Annex 2, Table A.2.4-26.
3. Truck charge at Bs.1 for jeep, Bs.3 for 5 ton truck, Bs.5 for 10 ton truck, and Bs.10 for 20 ton truck.
4. Depreciation, Maintenance and Reinvestment costs are calculated based on 65% of Building/Equipment cost assuming depreciation, maintenance & reinvestment are undertaken at local prices by local contractors/suppliers.
5. Operation expense (personnel, utilities, electricity, etc.) rationalized for effective operation.

表 12-7 新規卸売市場と全産地集出荷場の損益計算書およびキャッシュ・フロー

| | | Unit: US\$ | | | | | | | | | | | |
|----|-----------------------------------------|------------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| I | Income Statement | | | | | | | | | | | | |
| | A. Revenue | | | 62,500 | 823,171 | 1,726,165 | 1,981,298 | 2,175,231 | 2,400,500 | 2,589,469 | 2,784,039 | 2,927,308 | 3,005,877 |
| | 1) Net income of wholesalers | | | | 728,414 | 1,456,827 | 1,503,322 | 1,549,816 | 1,611,809 | 1,673,801 | 1,735,794 | 1,797,787 | 1,859,779 |
| | 2) Entering truck charge | | | | 11,357 | 23,338 | 24,076 | 24,815 | 25,891 | 26,968 | 28,045 | 29,121 | 30,198 |
| | 1) User fee | | | 62,500 | 83,400 | 246,000 | 453,900 | 600,600 | 762,800 | 888,700 | 1,020,200 | 1,100,400 | 1,115,900 |
| | B. Expense | | | 89,300 | 382,762 | 928,734 | 1,195,424 | 1,289,824 | 1,407,824 | 1,477,124 | 1,559,624 | 1,618,724 | 1,624,224 |
| | 1) Operation (NWM) | | | | 66,744 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 |
| | 2) Maintenance (NWM) | | | | 28,641 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 |
| | 3) Depreciation (NWM) | | | | 187,977 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 |
| | 4) Operation & management (C/D centers) | | | 73,100 | 83,200 | 288,900 | 497,200 | 591,600 | 709,600 | 778,900 | 861,400 | 920,500 | 926,000 |
| | 5) Depreciation (C/D centers) | | | 16,200 | 16,200 | 73,100 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 |
| | 6) Interest | | | | | | | | | | | | |
| | C. Income before Depr.&Interest | | | -10,600 | 644,586 | 1,246,495 | 1,293,328 | 1,392,861 | 1,500,130 | 1,619,799 | 1,731,869 | 1,816,038 | 1,889,107 |
| | D. Net Income | | | -26,800 | 440,408 | 797,441 | 785,874 | 885,407 | 992,676 | 1,112,345 | 1,224,414 | 1,308,584 | 1,381,653 |
| II | Cash Flow | | | | | | | | | | | | |
| | A. Source of Funds | | 138,042 | 8,141,823 | 10,081,387 | 2,869,968 | 1,293,328 | 1,392,861 | 1,500,130 | 1,619,799 | 1,731,869 | 1,816,038 | 1,889,107 |
| | 1) Government (NWM) | | | 8,152,423 | 8,346,566 | | | | | | | | |
| | 2) Government (C/D Centers) | | 138,042 | | 1,090,235 | 1,623,493 | | | | | | | |
| | 3) Loan | | | | | | | | | | | | |
| | 4) Own equity | | | | | | | | | | | | |
| | 5) Depreciation (NWM) | | | | 187,977 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 |
| | 6) Depreciation (C/D Centers) | | | 16,200 | 16,200 | 73,100 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 |
| | 7) Net income | | | -26,800 | 440,408 | 797,441 | 785,874 | 885,407 | 992,676 | 1,112,345 | 1,224,414 | 1,308,584 | 1,381,653 |
| | B. Uses of Funds | | 138,042 | 8,152,423 | 9,436,801 | 1,623,493 | | | 80,010 | | | | 21,000 |
| | 1) Building (NWM) | | | 8,073,969 | 8,298,337 | | | | | | | | |
| | 2) Building (C/D Centers) | | 138,042 | | 1,090,235 | 1,623,493 | | | | | | | |
| | 3) Equipment (NWM) | | | 78,454 | 48,229 | | | | | | | | |
| | 4) Reinvestment (NWM) | | | | | | | | 80,010 | | | | |
| | 5) Reinvestment (C/D Centers) | | | | | | | | | | | | 21,000 |
| | 6) Repayment of loan | | | | | | | | | | | | |
| | C. Net cash flow | | | -10,600 | 644,586 | 1,246,495 | 1,293,328 | 1,392,861 | 1,420,120 | 1,619,799 | 1,731,869 | 1,816,038 | 1,888,107 |
| I | Income Statement | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | |
| | A. Revenue | 3,068,947 | 3,132,016 | 3,195,085 | 3,258,154 | 3,321,224 | 3,384,293 | 3,447,362 | 3,510,431 | 3,573,501 | 3,636,570 | 3,699,639 | |
| | 1) Net income of wholesalers | 192,1772 | 198,3765 | 204,5757 | 210,7750 | 216,9743 | 223,1735 | 229,3728 | 235,5721 | 241,7713 | 247,9706 | 254,1699 | |
| | 2) Entering truck charge | 31,274 | 32,351 | 33,428 | 34,504 | 35,581 | 36,658 | 37,734 | 38,811 | 39,887 | 40,964 | 42,041 | |
| | 1) User fee | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | 1,115,900 | |
| | B. Expense | 1,624,224 | 1,624,224 | 1,624,224 | 1,624,224 | 1,624,224 | 1,624,224 | 1,624,224 | 1,624,224 | 1,624,224 | 1,624,224 | 1,624,224 | |
| | 1) Operation (NWM) | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | |
| | 2) Maintenance (NWM) | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | |
| | 3) Depreciation (NWM) | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | |
| | 4) Operation & management (C/D centers) | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | 926,000 | |
| | 5) Depreciation (C/D centers) | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | |
| | 6) Interest | | | | | | | | | | | | |
| | C. Income before Depr.&Interest | 1,952,176 | 2,015,246 | 2,078,315 | 2,141,384 | 2,204,453 | 2,267,523 | 2,330,592 | 2,393,661 | 2,456,731 | 2,519,800 | 2,582,869 | |
| | D. Net Income | 1,444,722 | 1,507,791 | 1,570,861 | 1,633,930 | 1,696,999 | 1,760,068 | 1,823,138 | 1,886,207 | 1,949,276 | 2,012,346 | 2,075,415 | |
| II | Cash Flow | | | | | | | | | | | | |
| | A. Source of Funds | 1,952,176 | 2,015,246 | 2,078,315 | 2,141,384 | 2,204,453 | 2,267,523 | 2,330,592 | 2,393,661 | 2,456,731 | 2,519,800 | 2,582,869 | |
| | 1) Government (NWM) | | | | | | | | | | | | |
| | 2) Government (C/D Centers) | | | | | | | | | | | | |
| | 3) Loan | | | | | | | | | | | | |
| | 4) Own equity | | | | | | | | | | | | |
| | 5) Depreciation (NWM) | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | |
| | 6) Depreciation (C/D Centers) | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | 131,500 | |
| | 7) Net income | 1,444,722 | 1,507,791 | 1,570,861 | 1,633,930 | 1,696,999 | 1,760,068 | 1,823,138 | 1,886,207 | 1,949,276 | 2,012,346 | 2,075,415 | |
| | B. Uses of Funds | 151,883 | 57,800 | 131,400 | 72,500 | 6,400 | 131,510 | | | | | 126,683 | |
| | 1) Building (NWM) | | | | | | | | | | | | |
| | 2) Building (C/D Centers) | | | | | | | | | | | | |
| | 3) Equipment (NWM) | | | | | | | | | | | | |
| | 4) Reinvestment (NWM) | 126,683 | | | | | 128,310 | | | | | 126,683 | |
| | 5) Reinvestment (C/D Centers) | 25,200 | 57,800 | 131,400 | 72,500 | 6,400 | 3,200 | | | | | | |
| | 6) Repayment of loan | | | | | | | | | | | | |
| | C. Net cash flow | 1,800,293 | 1,957,446 | 1,946,915 | 2,068,884 | 2,198,053 | 2,136,013 | 2,330,592 | 2,393,661 | 2,456,731 | 2,519,800 | 2,456,186 | |

Remarks:
 1. Operation, maintenance and depreciation during the 1st year of operation of NWM will be approximately half of normal years operation due to phased construction.
 2. Land acquisition, preparation and infrastructure extension costs are not included in building cost of NWM.

表 12-8 卸売セクションの建設と運営を民間により実施する場合の新規卸売市場の損益計算書、キャッシュ・フロー、および財務的内部収益率

| | | Unit: US\$ | | | | | | | | | | | | | |
|-----------|---------------------------------|------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | |
| | | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
| I | Income Statement | | | | | | | | | | | | | | |
| | A. Revenue | | 327,963 | 657,174 | 658,651 | 660,128 | 662,281 | 664,434 | 666,587 | 668,741 | 670,894 | 673,047 | 675,200 | 677,354 | 679,507 |
| | 1) Rental fee of space | | 305,249 | 610,498 | 610,498 | 610,498 | 610,498 | 610,498 | 610,498 | 610,498 | 610,498 | 610,498 | 610,498 | 610,498 | 610,498 |
| | 2) Entering truck charge | | 22,714 | 46,675 | 48,152 | 49,629 | 51,783 | 53,936 | 56,089 | 58,242 | 60,396 | 62,549 | 64,702 | 66,855 | 69,009 |
| | B. Expense | | 663,914 | 947,276 | 947,276 | 947,276 | 947,276 | 947,276 | 947,276 | 947,276 | 947,276 | 947,276 | 947,276 | 947,276 | 947,276 |
| | 1) Operation | | 66,744 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 |
| | 2) Maintenance | | 28,641 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 |
| | 3) Depreciation | | 187,977 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 |
| | 4) Interest | | 380,552 | 380,552 | 380,552 | 380,552 | 380,552 | 380,552 | 380,552 | 380,552 | 380,552 | 380,552 | 380,552 | 380,552 | 380,552 |
| | C. Income before Depr.&Interest | | 232,578 | 466,403 | 467,881 | 469,358 | 471,511 | 473,664 | 475,817 | 477,971 | 480,124 | 482,277 | 484,430 | 486,583 | 488,737 |
| | D. Net Income | | -335,951 | -290,102 | -288,625 | -287,148 | -284,995 | -282,842 | -280,688 | -278,535 | -276,382 | -274,229 | -272,076 | -269,922 | -267,769 |
| II | Cash Flow | | | | | | | | | | | | | | |
| | A. Source of Funds | 2,700,000 | -147,973 | 85,852 | 87,329 | 88,806 | 90,959 | 93,113 | 95,266 | 97,419 | 99,572 | 101,725 | 103,879 | 106,032 | 108,185 |
| | 1) Government | | | | | | | | | | | | | | |
| | 2) Loan | 2,700,000 | | | | | | | | | | | | | |
| | 3) Own equity | | | | | | | | | | | | | | |
| | 4) Depreciation | | 187,977 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 |
| | 5) Net income | | -335,951 | -290,102 | -288,625 | -287,148 | -284,995 | -282,842 | -280,688 | -278,535 | -276,382 | -274,229 | -272,076 | -269,922 | -267,769 |
| | B. Uses of Funds | 2,700,000 | 16,052 | 18,219 | 20,678 | 23,470 | 26,638 | 30,234 | 34,316 | 38,948 | 44,206 | 50,174 | 56,948 | 64,636 | 73,361 |
| | 1) Building | 2,700,000 | | | | | | | | | | | | | |
| | 2) Equipment | | | | | | | | | | | | | | |
| | 3) Reinvestment | | | | | | | | | | | | | | |
| | 4) Repayment of loan | | 16,052 | 18,219 | 20,678 | 23,470 | 26,638 | 30,234 | 34,316 | 38,948 | 44,206 | 50,174 | 56,948 | 64,636 | 73,361 |
| | C. Net cash flow | | -164,025 | 67,633 | 66,651 | 65,337 | 64,321 | 62,878 | 60,950 | 58,471 | 55,366 | 51,551 | 46,931 | 41,396 | 34,824 |

| | | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-----------|---------------------------------|----------|----------|----------|----------|----------|----------|----------|
| | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| I | Income Statement | | | | | | | |
| | A. Revenue | 681,660 | 683,813 | 685,967 | 688,120 | 690,273 | 692,426 | 694,579 |
| | 1) Rental fee of space | 610,498 | 610,498 | 610,498 | 610,498 | 610,498 | 610,498 | 610,498 |
| | 2) Entering truck charge | 71,162 | 73,315 | 75,468 | 77,622 | 79,775 | 81,928 | 84,081 |
| | B. Expense | 947,276 | 947,276 | 947,276 | 947,276 | 947,276 | 947,276 | 947,276 |
| | 1) Operation | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 | 133,488 |
| | 2) Maintenance | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 | 57,282 |
| | 3) Depreciation | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 |
| | 4) Interest | 380,552 | 380,552 | 380,552 | 380,552 | 380,552 | 380,552 | 380,552 |
| | C. Income before Depr.&Interest | 490,890 | 493,043 | 495,196 | 497,350 | 499,503 | 501,656 | 503,809 |
| | D. Net Income | -265,616 | -263,463 | -261,309 | -259,156 | -257,003 | -254,850 | -252,696 |
| II | Cash Flow | | | | | | | |
| | A. Source of Funds | 110,338 | 112,492 | 114,645 | 116,798 | 118,951 | 121,105 | 123,258 |
| | 1) Government | | | | | | | |
| | 2) Loan | | | | | | | |
| | 3) Own equity | | | | | | | |
| | 4) Depreciation | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 | 375,954 |
| | 5) Net income | -265,616 | -263,463 | -261,309 | -259,156 | -257,003 | -254,850 | -252,696 |
| | B. Uses of Funds | 83,265 | 94,506 | 107,264 | 121,745 | 138,180 | 156,835 | 178,008 |
| | 1) Building | | | | | | | |
| | 2) Equipment | | | | | | | |
| | 3) Reinvestment | | | | | | | |
| | 4) Repayment of loan | 83,265 | 94,506 | 107,264 | 121,745 | 138,180 | 156,835 | 178,008 |
| | C. Net cash flow | 27,073 | 17,986 | 7,381 | -4,947 | -19,229 | -35,730 | -54,750 |

| FIRR of Privatized Wholesalers' Section | | | Unit: US\$ |
|-----------------------------------------|------------|------------|------------------------------------|
| | Investment | Reinvestmt | Income before Net Revenue Depr. |
| 2001 | 2,700,000 | | -2,700,000 |
| 2002 | | | 232,578 |
| 2003 | | | 466,403 |
| 2004 | | | 467,881 |
| 2005 | | | 469,358 |
| 2006 | | | 471,511 |
| 2007 | | | 473,664 |
| 2008 | | | 475,817 |
| 2009 | | | 477,971 |
| 2010 | | | 480,124 |
| 2011 | | | 482,277 |
| 2012 | | | 484,430 |
| 2013 | | | 486,583 |
| 2014 | | | 488,737 |
| 2015 | | | 490,890 |
| 2016 | | | 493,043 |
| 2017 | | | 495,196 |
| 2018 | | | 497,350 |
| 2019 | | | 499,503 |
| 2020 | | | 501,656 |
| 2021 | | | 503,809 |
| | | | FIRR = 15.4% |
| | | | NPV = 566,305 |

Remarks:

- Private developer to build the new wholesale market hall no.1 by own loan. Construction cost reduced by 50%.
- Market space rental charge increased 2 times to Bt50/day. Participation in MERCOSUR may improve economic situation for wholesalers to be able to pay this charge.
- Entering truck charge increased 2 times. Participation in MERCOSUR may increase handling volume of import and export to enable truckers to pay this charge.
- Revenue, operation, maintenance and depreciation during the 1st year of operation will be approximately half of normal years operation.
- Loan at 13.5% interest rate for 25 years with no grace period.

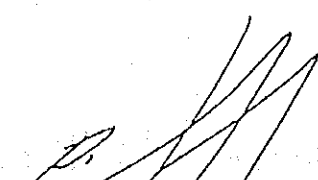
Remark:

- Investment by private developer.
- Loan at 13.5% interest, 25 years loan period, no grace period.

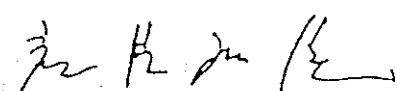
添付資料1 ミニユッツ

Scope of Work
for
Feasibility Study for the Improvement of Agricultural Marketing System in Santa Cruz
agreed upon between
Department of Sustainable Development of the Prefecture of Santa Cruz Department
and
Japan International Cooperation Agency

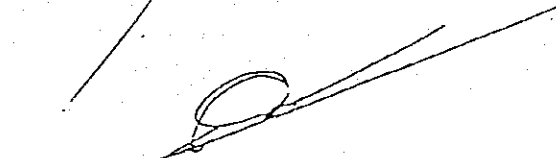
Santa Cruz, 4 December, 1997



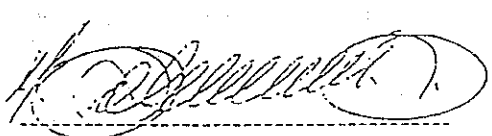
Zvonko Markovic
Prefect of Santa Cruz
The Republic of Bolivia



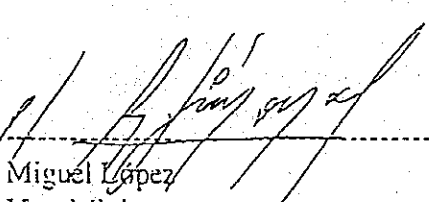
Hironobu Iwakata
Leader
JICA Preparatory Study Team



Luis F. Conde
Minister
Ministry of Agriculture, Cattle and
Rural Development of the Republic of Bolivia



Johnny Fernández
Mayor
Municipal Government of
Santa Cruz de la Sierra
The Republic of Bolivia



Miguel López
Vice-Minister
Public Investment and External Finance
Ministry of Finance of the Republic of Bolivia

I. INTRODUCTION

In response to the request of the Government of the Republic of Bolivia (hereinafter referred to as "Bolivia"), the Government of Japan decided to conduct a feasibility study for the improvement of agricultural marketing system in Santa Cruz (hereinafter referred to as "the Study") in accordance with the Agreement on Technical Cooperation between the Government of Japan and the Government of Bolivia signed on March 22, 1978 (hereinafter referred to as "the Agreement").

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of Bolivia.

The present document sets forth the Scope of Work for the Study.

II. OBJECTIVES OF THE STUDY

The objectives of the study are:

- (a) To conduct a feasibility study for the improvement of agricultural marketing system in Santa Cruz Department. As proposed in the final report of the Master Plan Study of the Agricultural Marketing System in Santa Cruz prepared in May 1995 (hereinafter referred to as "the Master Plan"), the present study would mainly focus on two principal components: (i) establishment of new marketing facilities at consumer site together with strengthening of management; (ii) establishment of farmer managed collection and distribution centers at production site, taking functions of transportation and marketing also into account; and,
- (b) To carry out technology transfer to Bolivian counterpart personnel through on-the-job training in the course of the Study.

III. STUDY AREA

The study areas will include fruit and vegetable production zones of the valley and plain regions, and consumer area in Santa Cruz Prefecture. The production area would include San Isidro, Los Negros, Vallegrande, Camarapa, Saipina, Mairana and Samaipata, and the consumer area would include Santa Cruz metropolitan area. A map showing the study areas is attached in Appendix-I.

IV. SCOPE OF THE STUDY

The principal target crops of the Study are fruits and vegetables as indicated in the

Master Plan. The Study would consist of two phases; and the following work would be carried out in each phase.

PHASE I : Preparatory phase

- (a) Review of the Master Plan
- (b) Evaluate present agricultural marketing system in Santa Cruz through assessing the improvement realized in the light of the Master Plan
- (c) Collect, review and analyze existing data and information followed by additional interviews, workshop and field survey:
 - Socio-economic conditions of the study area;
 - Existing fruit and vegetable production and marketing systems, including processing;
 - Identification of target beneficiaries, their socio-economic status and development needs, both at production site and consumer site;
 - Work responsibilities distinguished by gender in fruit and vegetable production and marketing;
 - Activities of existing organizations, cooperatives and NGOs relevant to the Study;
 - Agricultural and financial support services available in the study area and accessibility to target beneficiaries;
 - Prospective impacts of the MERCOSUR on fruit and vegetable production and marketing systems; and,
 - Institutional capacity of government agencies relevant to the Study.

PHASE II : Feasibility study phase

- (d) Conduct land survey and other examination(s) necessary for preliminary design of major structures such as marketing facilities, and collection and distribution centers
- (e) Prepare an improvement plan of agricultural marketing system including following components and sub-components, considering prospective impacts of the MERCOSUR and gender aspects:
 - New marketing facilities at consumer site;
 - identification of site
 - identification/designing of necessary facilities and equipments
 - Management of the new market;
 - operation and maintenance methods and procedures
 - training for the administration
 - training for user groups

Collection and distribution centers at production sites including rehabilitation of existing center(s);

- identification of sites
- identification/designing of necessary facilities and equipments

Management of collection and distribution centers;

- operation and maintenance methods and procedures
- training for the administration
- training for the user groups particularly women

Support and training for other beneficiary groups.



- (f) Prepare financing plan
- (g) Prepare implementation schedule
- (h) Conduct initial environmental examination
- (i) Conduct economic and financial analyses

V. STUDY SCHEDULE



A tentative schedule for the implementation of the Study is attached in Appendix-2.

VI. REPORTING

JICA shall prepare and submit the following reports to the Government of Bolivia:

- 
- | | |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inception Report | : Twenty (20) copies in Spanish only at the onset of Phase I; |
| Progress I Report | : Twenty (20) copies in Spanish only at the end of Phase I; |
| Interim Report | : Twenty (20) copies in Spanish only at the onset of Phase II; |
| Progress II Report | : Twenty (20) copies in Spanish only in the middle of Phase II; |
| Draft Final Report | : Twenty (20) copies in Spanish and twenty (20) copies in English at the end of Phase II; |
| | Bolivian side shall submit written comments on the Draft Final Report to JICA in one month after the receipt of the report |
| Final Report | : Fifty (50) copies in Spanish and fifty (50) copies in English (main report only) in two (2) months after the receipt of comments from the Bolivian side |
- 

VII. UNDERTAKING OF GOVERNMENT OF BOLIVIA

- 
1. The Government of Bolivia shall accord privileges, exemptions and other benefits to
- 

Japanese study team(s) in accordance with the Agreement.

2. To facilitate smooth conduct of the Study, the Government of Bolivia shall take necessary measures:

- (a) To secure the safety of the Japanese study team(s);
- (b) To permit the members of the Japanese study team(s) to enter, leave and stay in Bolivia for the duration of their assignment therein and exempt them from foreign registration requirements and consular fees;
- (c) To exempt the members of the study team(s) from taxes, duties, fees and any other charges on equipment, machinery and other materials brought into and out of Bolivia for the conduct of the Study;
- (d) To exempt the members of the Japanese study team(s) from income tax and charges of any kind imposed on or in connection with any emoluments or allowance paid to the members of the Japanese study team for their services in connection with the implementation of the Study;
- (e) To provide necessary facilities to the Japanese study team(s) for the remittance as well as the utilization of the funds introduced into Bolivia from Japan in connection with the implementation of the Study;
- (f) To secure permission for the Japanese study team(s) to enter private properties or restricted areas for the implementation of the Study;
- (g) To secure permission for the Japanese study team(s) to take all data and documents related to the Study, including maps and photographs, out of Bolivia to Japan; and,
- (h) To provide the Japanese study team(s) with medical services as needed, the expenses of which shall be chargeable to the Japanese study team(s).

3. The Government of Bolivia shall bear claims, if any arises, against the members of the Japanese study team(s) resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Japanese study team(s).

4. Department of Sustainable Development of the Prefecture of Santa Cruz Department shall act as the counterpart agency to the Japanese study team(s) and also as coordinating body in relation with the Government of the Prefectural Department of Santa Cruz and other relevant organizations concerned for the smooth implementation of the Study.

5. Department of Sustainable Development of the Prefecture of Santa Cruz Department shall provide, at its own expense, to the Japanese study team(s) with the following, in

cooperation with other organizations concerned:

- (a) available data, maps and information related to the Study;
- (b) counterpart personnel;
- (c) suitable office space with necessary furniture, including a telephone line, in Santa Cruz; and,
- (d) credentials or identification cards.

6. Department of Sustainable Development of the Prefectural Department of Santa Cruz shall conduct land surveys necessary for the Study.

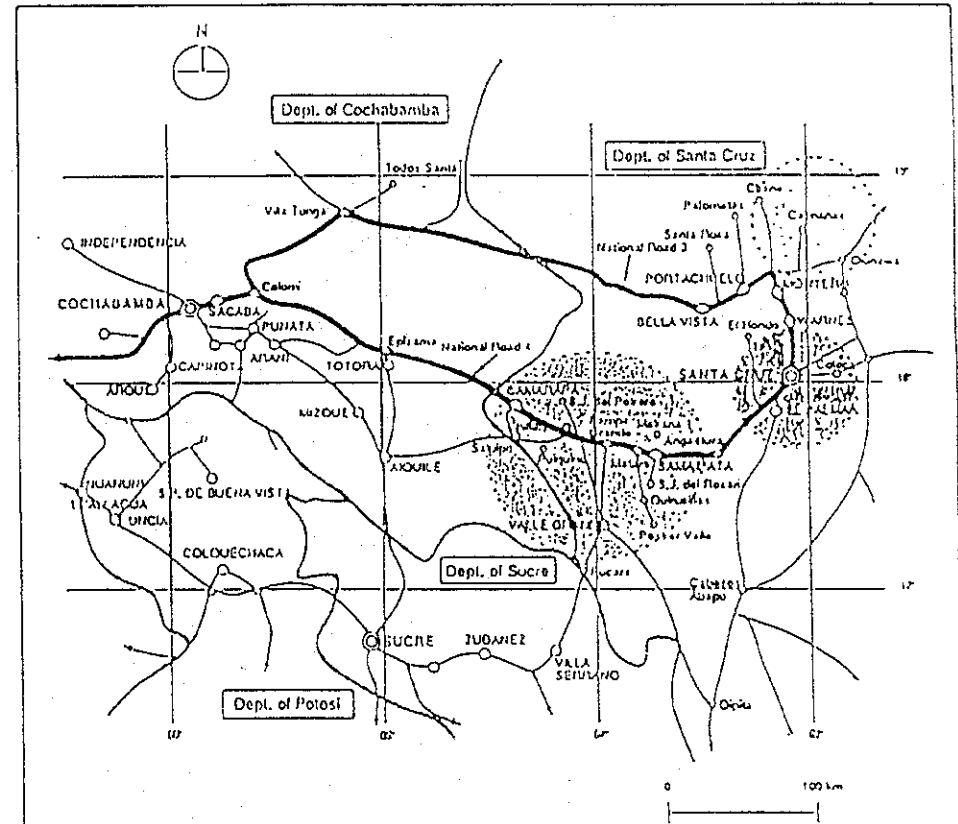
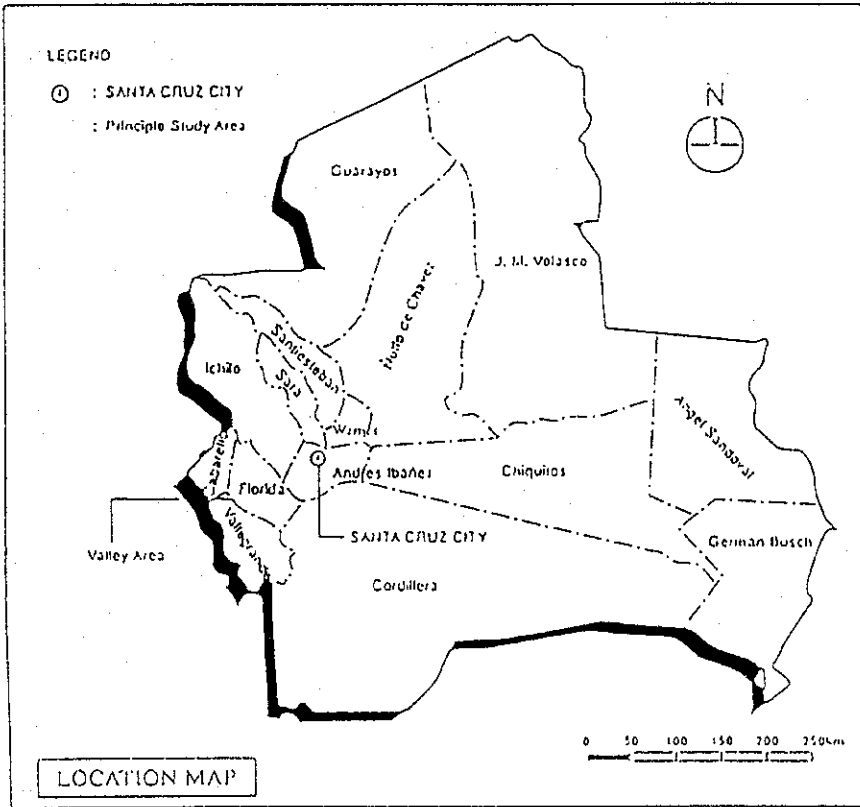
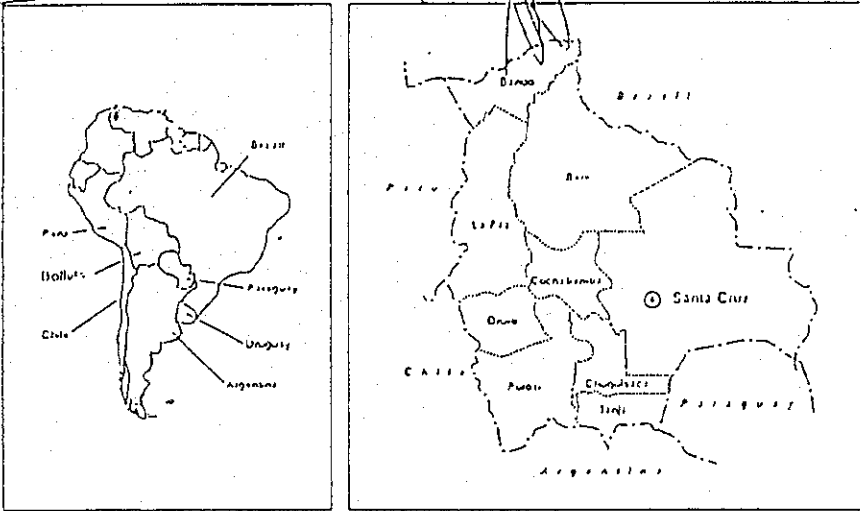
VIII. UNDERTAKING OF JICA

For the implementation of the study, JICA shall take the following measures:

- (a) To dispatch, at its own expense, study team(s) to Bolivia; and,
- (b) To pursue technology transfer to the Bolivian counterpart personnel in the course of the Study.

IX. CONSULTATION

JICA and the Department of Sustainable Development of the Prefecture of Santa Cruz Department shall consult with each other in respect of any matter that may arise from or in connection with the Study.



Distance from Santa Cruz City

| | | |
|-----------------------------|--------------|--------|
| Valle Area | VALLE GRANDE | 242 km |
| | COMARAPA | 241 km |
| | SAMAIPATA | 120 km |
| Main City of Other Province | COCHABAMBA | 500 km |
| | SUCRE | 600 km |
| | LA PAZ | 903 km |
| | POTOSÍ | 747 km |

Legend

- Production Area of Valley Area
- Production Area of Low Land Area
- Consumption Area
- National Road
- Other Main Road
- Boundary of Dept.
- Capital of Dept.

LOCATION MAP OF PRODUCTION AND CONSUMPTION AREA

AP1-7

TENTATIVE WORKING SCHEDULE

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------------|---|-----------|------------|---|---|-----------|------------|---|---|-----------|----|----------|
| Work in Bolivia | | ■ | ■ | | | ■ | ■ | | | ■ | | |
| Work in Japan | □ | | | □ | | | | □ | | | | |
| Phasing | ← | Phase I | | | → | ← | Phase II | | | → | | |
| Reports | | △ Ic/R | △ P/R 1 | | | △ It/R | △ P/R 2 | | | △ DF/R | ◎ | △ F/R |

Ic/R : Inception Report

P/R 1 : Progress 1 Report

It/R : Interim Report

P/R 2 : Progress 2 Report

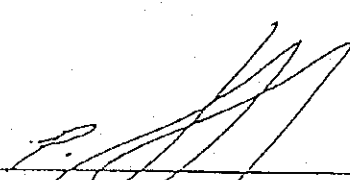
DF/R : Draft Final Report

F/R : Final Report

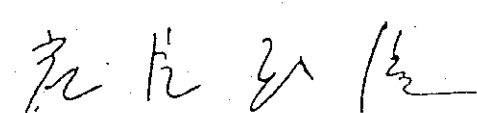
◎ : Submission of written comments on DF /R by Bolivian side

Alcance de Trabajo
para
el Estudio de Factibilidad sobre el Sistema de Mercadeo Agrícola en Santa Cruz
acordado
entre
la Dirección Departamental de Desarrollo Sostenible
de
la Prefectura del Departamento de Santa Cruz
y
la Agencia de Cooperación Internacional del Japón

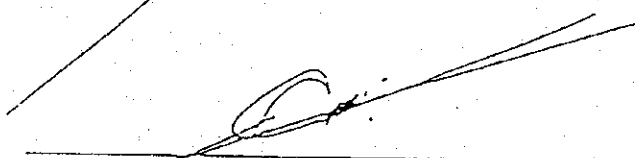
Santa Cruz, 4 de Diciembre de 1997



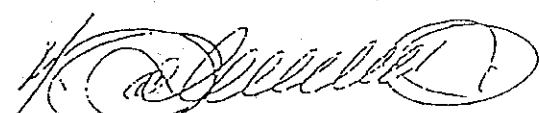
Zvonko Matkovic
Prefecto de Santa Cruz
República de Bolivia



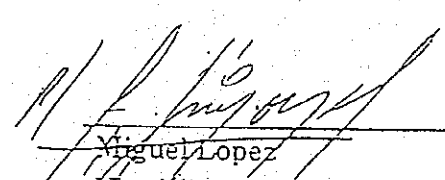
Hironobu Iwakata
Jefe del Equipo del Estudio
Preparatorio de JICA



Luis P. Conde
Ministro de Agricultura,
Ganadería y Desarrollo Rural
República de Bolivia



Johnny Fernández
Alcalde de Santa Cruz de la Sierra
República de Bolivia



Miguel Lopez
Vice Ministro de Inversión
Ministerio de Hacienda
República de Bolivia

I. INTRODUCCION

En respuesta a la solicitud del Gobierno de la República de Bolivia (en adelante referido como "el Gobierno de Bolivia"), el Gobierno del Japón ha decidido llevar a cabo el Estudio de Factibilidad para el mejoramiento del sistema de mercadeo agrícola en Santa Cruz (en adelante referido como "el Estudio") de conformidad con el Acuerdo sobre la Cooperación Técnica entre el Gobierno del Japón y el Gobierno de Bolivia suscrito el 22 de marzo de 1978 (en adelante referido como "el Acuerdo").

En consecuencia, la Agencia de Cooperación Internacional del Japón (en adelante referido como "JICA"), agencia oficial responsable de la ejecución de los programas de cooperación técnica del Gobierno de Japón, emprenderá el Estudio en estrecha cooperación con las autoridades concernientes de Bolivia.

El presente documento estipula el Alcance del Trabajo con respecto al Estudio.

II. OBJETIVOS DEL ESTUDIO

Los objetivos del Estudio son:

- (a) Llevar a cabo un estudio de factibilidad para mejorar el sistema de mercadeo agrícola en el Departamento de Santa Cruz, como ha sido propuesto en el informe final del Plan Maestro sobre el Sistema de Mercadeo Agrícola, preparado en mayo de 1995 (en adelante referido como "el Plan Maestro"). El presente estudio abarcará dos principales componentes; (i) establecimiento de nuevas instalaciones de mercadeo en zonas de consumidores, junto con el reforzamiento de sus administraciones; (ii) establecimiento de Centros de Acopio y Distribución administrados por agricultores en zonas de producción, teniéndose también en cuenta las funciones de transporte y mercadeo, y
- (b) Realizar la transferencia de tecnología al personal de contraparte boliviano, a través del entrenamiento práctico en el curso del Estudio.

III. AREA DEL ESTUDIO

El área del Estudio incluirá zonas de producción de frutas y hortalizas en las regiones de valles y llanos, así como la zona de consumo del Departamento de Santa Cruz. El área de producción abarcará San Isidro, Los Negros, Vallegrande, Comarapa, Saipina, Mairana y Samaipata y el área de consumo abarcará la Zona Metropolitana

de Santa Cruz. El mapa que indica el área del estudio está adjunto en el Apéndice-1.

IV. ALCANCE DEL ESTUDIO

Los cultivos principales y objetivos del Estudio son frutas y hortalizas como está indicado en el Plan Maestro. El Estudio constará de dos fases y los siguientes trabajos serán llevados a cabo en cada fase.

Fase I: Fase preparatoria

- (a) Revisión del Plan Maestro
- (b) Evaluación del sistema actual de mercadeo agrícola en Santa Cruz, mediante la valoración de las mejoras realizadas en base al Plan Maestro
- (c) Recolección, revisión y análisis de datos e informaciones existentes, complementado con entrevistas adicionales, talleres de trabajo y estudio de campo;
 - Condiciones socioeconómicas del área del estudio,
 - Sistemas existentes de producción de frutas y hortalizas, y mercadeo incluyendo procesamiento de las mismas,
 - Identificación de beneficiarios objetivo, su estado socioeconómico y su necesidad de desarrollo, tanto en las zonas de producción como de consumo,
 - Responsabilidades de trabajo por distinción del género en la producción y mercadeo de frutas y hortalizas,
 - Actividades de organizaciones, cooperativas y ONGs existentes relacionadas con el Estudio,
 - Servicios de apoyo agrícola y financiero disponibles en el área del Estudio y su accesibilidad a los beneficiarios objetivo,
 - Posibles impactos del Mercosur sobre la producción y sistema de mercadeo de frutas y hortalizas, y,
 - Capacidad institucional de agencias gubernamentales relacionadas con el Estudio.

Fase II: Fase del estudio de factibilidad

- (d) Llevar a cabo el levantamiento topográfico y otros estudios necesarios para el diseño preliminar de las estructuras principales, tales como instalaciones de mercadeo y Centros de Acopio y Distribución,
- (e) Preparar un plan de mejoramiento para el sistema de mercadeo agrícola, incluyendo los siguientes componentes y subcomponentes, teniéndose en

cuenta los eventuales impactos del Mercosur y aspectos del género;

Instalaciones de mercadeo en los lugares de consumo,

- identificación de los lugares,
- identificación y diseño de instalaciones y equipos necesarios,

Administración del nuevo mercado,

- métodos y procedimientos de operación y mantenimiento,
- entrenamiento para la administración,
- entrenamiento para grupos de usuarios,

Centros de Acopio y Distribución en los lugares de producción incluyendo la rehabilitación del (los) centro(s) existente(s),

- identificación de los lugares,
- identificación y diseño de instalaciones y equipos necesarios,

Administración de Centros de Acopio y Distribución,

- métodos y procedimientos de operación y mantenimiento,
- entrenamiento para la administración,
- entrenamiento para grupos de usuarios, especialmente, mujeres,

Apoyo y entrenamiento para otros grupos de beneficiarios,

- (f) Preparar el plan de financiamiento,
- (g) Preparar el cronograma de implementación,
- (h) Llevar a cabo el Examen Ambiental Inicial,
- (i) Hacer análisis económicos y financieros.

V. CRONOGRAMA DEL ESTUDIO

Se adjunta el cronograma tentativo para la implementación del Estudio en el Apéndice-2.

VI. INFORMES

JICA preparará y presentará los siguientes informes al Gobierno de Bolivia:

- Informe Inicial : Veinte (20) copias en español al inicio de la Fase I.
- Informe de Progreso I : Veinte (20) copias en español al final de la Fase I.
- Informe Intermedio : Veinte (20) copias en español al inicio de la Fase II.
- Informe de Progreso II : Veinte (20) copias en español a mediados de

la Fase II.

Borrador del Informe Final: Veinte (20) copias en español y veinte (20) copias en inglés al final de la Fase II.

La parte boliviana presentará a JICA los comentarios sobre este borrador dentro de un (1) mes después de haber recibido el mismo.


Informe Final

: Cincuenta (50) copias en español y cincuenta (50) copias en inglés (solamente el informe principal) en dos (2) meses después de haber recibido los comentarios de la parte boliviana.


VII. COMPROMISOS DEL GOBIERNO DE BOLIVIA

1. El Gobierno de Bolivia concederá privilegios, exoneraciones y otros beneficios al (los) equipo(s) del estudio japonés(es) de conformidad con el Acuerdo.
2. Para facilitar una fluida implementación del Estudio, el Gobierno de Bolivia tomará las siguientes medidas necesarias:
 - (a) Garantizar la seguridad del (los) equipo(s) del estudio japonés(es).
 - (b) Permitir a los miembros del (los) equipo(s) del estudio japonés(es) entrar, salir y permanecer en Bolivia durante el tiempo asignado a este trabajo y eximirlos de los requisitos de registro de extranjeros y tarifas consulares.
 - (c) Exonerar a los miembros del (los) equipo(s) japonés(es) de impuestos, derechos, tarifas y cualquier otro cargo sobre equipos, maquinarias y otros materiales traídos a y llevados de Bolivia para la ejecución del Estudio.
 - (d) Eximir a los miembros del (los) equipo(s) del estudio japonés(es) de impuestos sobre la renta y otros gravámenes de cualquier tipo sobre o en conexión con los emolumentos o viáticos pagados a los miembros del (los) equipo(s) del estudio japonés(es) por sus servicios en relación con la ejecución del Estudio.
 - (e) Proveer al (los) equipo(s) del estudio japonés(es) facilidades necesarias tanto para remitir como para utilizar los fondos introducidos en Bolivia desde Japón en relación con la implementación del Estudio.
 - (f) Garantizar al (los) equipo(s) del estudio japonés(es) el permiso de ingreso a propiedades privadas o áreas restringidas para la ejecución del Estudio.
 - (g) Asegurar al (los) equipo(s) del estudio japonés(es) el permiso para llevar todos los datos y documentos relacionados con el Estudio, incluyendo mapas y fotografías, fuera de Bolivia al Japón, y

- (h) Proporcionar al (los) equipo(s) del estudio japonés(es) servicios médicos, cuando sean necesarios, cuyos gastos estarán a cargo del (los) equipo(s) del estudio japonés(es).
3. El Gobierno de Bolivia se hará cargo de los reclamos, si se presenta alguno, contra los miembros del (los) equipo(s) del estudio japonés(es) que pudieran surgir de, ocurrir en el transcurso de, o en sus tareas de la implementación del Estudio, excepto cuando tales reclamaciones se originen por grave negligencia o mala conducta intencional de los miembros del (los) equipo(s).
4. La Dirección Departamental de Desarrollo Sostenible de la Prefectura del Departamento de Santa Cruz actuará como agencia contraparte del (los) equipo(s) del estudio japonés(es) y también como cuerpo-coordinador en relación con el Gobierno del Departamento de Santa Cruz y otras organizaciones relevantes concernientes a la fluida implementación del Estudio.
5. La Dirección Departamental de Desarrollo Sostenible de la Prefectura del Departamento de Santa Cruz proporcionará al (los) equipo(s) del estudio japonés(es), a su propio costo, lo siguiente en cooperación con otras organizaciones involucradas.
- (a) datos, mapas e informaciones disponibles relacionados con el Estudio,
 - (b) personal de contraparte,
 - (c) espacio de oficina adecuado con el equipamiento necesario, incluyendo una línea de teléfono, en Santa Cruz y,
 - (d) credenciales o tarjetas de identificación.
6. La Dirección Departamental de Desarrollo Sostenible de la Prefectura del Departamento de Santa Cruz se hará cargo del levantamiento topográfico necesario para el Estudio.




VIII. COMPROMISOS DE JICA




Para la ejecución del Estudio, JICA tomará las siguientes medidas;

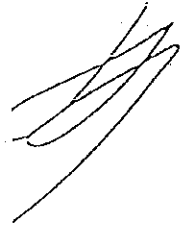
- (a) Enviar a su propio costo al (los) equipo(s) del estudio a Bolivia y,
- (b) Llevar a cabo la transferencia de tecnología al personal de la contraparte boliviana en el transcurso del Estudio.



IX. CONSULTAS



JICA y la Secretaría de Desarrollo Sostenible de la Prefectura del Departamento de Santa Cruz consultarán entre sí respecto de cualquier asunto que pueda surgir de o en conexión con el Estudio.



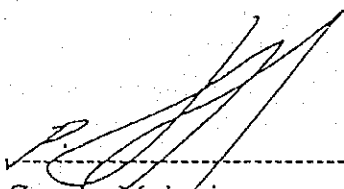
CRONOGRAMA DE TRABAJO TENTATIVO

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--------------------|------------|---|----------|---|-------------|----------|----------|---|---|----------|----|---------|
| Trabajo en Bolivia | | ■ | ■ | | | ■ | ■ | | | ■ | | |
| Trabajo en Japón | □ | | | □ | | | | □ | | | | |
| Fase | ← fase I → | | | | ← fase II → | | | | | | | |
| Informe | △ II | | △ IP1 | | | △ IIt | △ IP2 | | | △ BIF | ⊙ | △ IF |

- II : Informe Inicial
- IP1 : Informe de Progreso 1
- IIt : Informe Intermedio
- IP2 : Informe de Progreso 2
- BIF : Borrador del Informe Final
- IF : Informe Final
- ⊙ : Entrega de comentarios escritos sobre BIF por la parte boliviada

Minutes of Meeting
on
the Scope of Work
for
the Feasibility Study for the Improvement of Agricultural Marketing System in Santa Cruz

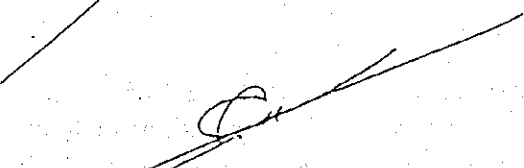
Santa Cruz, 4 December, 1997



Zvonko Matkovic
Prefect of Santa Cruz
The Republic of Bolivia



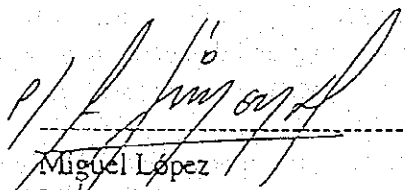
Hironobu Iwakata
Leader
JICA Preparatory Study Team



Luis F. Conde
Minister
Ministry of Agriculture, Cattle and
Rural Development of the Republic of Bolivia



Johnny Fernández
Mayor of Santa Cruz
Municipal Government of
Santa Cruz de la Sierra
The Republic of Bolivia



Miguel López
Vice-Minister
Public Investment and External Finance
Ministry of Finance of the Republic of Bolivia

A preparatory study team organized by Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Mr. Hironobu Iwakata, visited the Republic of Bolivia from November 26 to December 4, 1997 for the purpose of discussing and confirming the Scope of Work for Feasibility Study for the Improvement of Agricultural Marketing System in Santa Cruz (hereinafter referred to as "the Study").

The preparatory study team had a series of discussions with the officials concerned of the Department of Sustainable Development (hereinafter referred to as "DSD") of the Prefecture of Santa Cruz Department and other related organizations such as the Municipal Government of Santa Cruz de la Sierra on the Scope of Work for the Study. The list of participants in the meetings is attached in Annex 1.

1. The progress in agricultural marketing system improvement made so far, in the light of the Master Plan, was explained and, the attached paper was prepared by DSD (Annex 2). The preparatory study team and DSD agreed that improvement should continue to take place, taking recommendations of the Master Plan into highest consideration, in periods both before the start of and during the Study. Both sides also confirmed that in implementing the Master Plan, the preparation for formal establishment and strengthening of a managing body for the new market should be placed highest priority.
2. Both sides agreed that while the production areas covered by the Study would include San Isidro, Los Negros, Vallegrande, Camarapa, Saipina, Mairana and Samaipata, the number of collection and distribution centers and sub-centers proposed would depend on the results of the Study.
3. Both sides agreed that DSD shall take necessary actions and measures to carry out financial resources required, either from international and/or national funding institutions including FDC, for implementing project components proposed by the Study, including beneficiary training.
4. Both sides agreed that DSD shall be responsible for coordinating the necessary institutional assistance for the Study to conduct environmental impact assessment.
5. Both sides agreed that the assignment of counterpart personnel should be completed before the start of the Study, and that those officials of DSD who worked as counterparts for the Master Plan Study (the Master Plan Study of the Agricultural Marketing System in Santa Cruz, 1995) should remain counterparts for the present Study. Both sides also agreed that each member of the study team, specialized in one technical discipline, should have one counterpart person.
6. Both sides confirmed that Santa Cruz Prefecture is the counterpart agency for the Study under the supervision and standards of the Ministry of Agriculture, Cattle and Rural Development.
7. DSD considered that vehicles, a photocopier and a facsimile necessary for the Study should be provided to the Study team by the Government of Japan. The preparatory study team promised to convey the request to the Government of Japan for consideration.
8. DSD requested counterpart training in Japan. The preparatory study team promised to convey the request to the Government of Japan for consideration.

9. Both sides agreed that a close consultation and collaboration with the Municipal Government of Santa Cruz de la Sierra shall be maintained during the Study with the understanding that the City would play very important roles in implementing improvement plans. After a tripartite discussion among the preparatory study team, the Prefecture of Santa Cruz Department and the Municipal Government of Santa Cruz de la Sierra, it was agreed that the latter would provide necessary supports for the Study.
10. DSD requested that the Study should start in May 1998. The preparatory study team promised to convey the request to the Government of Japan for consideration.
11. Both sides agreed that the Final Report of the Study would be made available to all parties that have interests in the Study.
12. The Scope of Work and the Minutes of Meeting are prepared in English and Spanish. In case any discrepancy arises in interpretation between the two texts, the English text shall prevail.

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List of Participants

Bolivian Side:*Ministry of Finance*

| | |
|--------------|-------------------------------------------------------------|
| Miguel López | Vice-Minister |
| Ivón Cuba | Public Investment and External Finance Financial Analyst |

Ministry of Agriculture, Cattle and Rural Development

| | |
|-------------------|---------------------------------|
| Luis Freddy Conde | Minister |
| Modesto Zeballos | Vice Minister |
| Lucio Choque | Chief of Planning Department |
| Yolanda Murillo | Production Support Director |
| Hector Alvarado | Chief of the Project Department |
| Carlos Fuentes | Technical Staff |

Prefecture of Santa Cruz Department

| | |
|-------------------|----------------------------------------------------------------------|
| Zvonko Matkovic | Prefect of Santa Cruz |
| Jorge Aguilera | Director |
| Kurt Holters | Department of Social Development Director |
| John W. Talavera | Department of Sustainable Development Chief of Planification Unit |
| José Sucre | Chief of Pre-Investment Unit |
| Guillermo Serrate | Coordinator of Prefectural Project |
| Rodolfo Candia | Planning Adviser |
| Walter Colbert | Technical Staff |
| Mario Ribera | Technical Staff |
| Carlos Barroso | Technical Staff |

Municipal Government of Santa Cruz de la Sierra

| | |
|-----------------------------|------------------------------------|
| Johnny Fernández | Mayor |
| Roger Serrate | Administrative Senior Official |
| Carlos Eduardo A. Ugarteche | Secretary of Environment and Norms |
| Erwin Bass Werner | Mayoralty's Adviser |

Japanese Side:*Preparatory Study Team*

| | |
|------------------|--------------------------------------------|
| Hironobu Iwakata | Leader |
| Tetsuya Matsue | Market Improvement & Management Specialist |

Teruyuki Nakamura
Isamu Iwama

Hajime Nabeta
Aki Higuchi

JICA Bolivia Office

Naoki Yanase
Carlos Omoya

JICA Santa Cruz Office

Fusayasu Kamiya

JICA Experts

Masaharu Torii

Mitsuhiko Nakasone

Collection & Distribution Systems Specialist
Participatory Development and
Gender Issues Specialist
Coordinator
Interpreter

Officer
Section Chief of Technical Cooperation

Technical Cooperation Staff

Regional & Socio-Economic Development
Planning Expert
Prefectural Department of Santa Cruz
Adviser to Planning Direction, MACDR

A vertical column of handwritten marks on the left side of the page. From top to bottom: a small signature, a larger signature, a circular scribble, and several vertical and diagonal scribbles.

ESTADO ACTUAL DEL PROYECTO COMERCIALIZACION DE PRODUCTOS
AGRICOLAS DE SANTA CRUZ-BOLIVIA

A continuación se describen las actividades desarrolladas referentes a las recomendaciones realizadas por el Plan Maestro:

1. Con relación al establecimiento del Comité Preparatorio

Para la ejecución de las recomendaciones del Plan Maestro, fue creado este Comité en julio de 1995 mediante un Acuerdo Interinstitucional, el mismo que funcionó regularmente hasta fines de 1995, gracias a esto se lograron realizar importantes obras de mejoramiento en el mercado de Abasto.

En los dos últimos años no fue posible trabajar coordinadamente por los cambios que se dieron tanto a nivel de Gobierno (Descentralización administrativa), como en el Municipio por los resultados de las elecciones, lo que afectó la coordinación que se mantenía hasta entonces con las anteriores autoridades. Pero, aun así se logró realizar las obras de mejoramiento del mercado Abasto.

2. El Plan de mejoramiento del sistema de distribución a nivel mayorista.

Al respecto, el Comité logró el apoyo del Gobierno Municipal de la ciudad en la priorización de las obras de mejoramiento del actual mercado de Abasto, con la finalidad de mejorar las condiciones del manejo de las instalaciones del mercado y el expendio de productos, las obras ejecutadas fueron las siguientes:

- Pavimentación, enlosado e iluminación de 3595 metros cuadrados
- Embardado de todo el perímetro del mercado
- Construcción de aceras
- Entubado para el drenaje interior de entrada
- Alcantarillado de 161 metros de pasillo.

El costo total de todas estas mejoras asciende a \$US 301.000

Con estas obras, se han mejorado sustancialmente las condiciones físicas e higiénicas del expendio de productos, mejorando la calidad de los productos y disminuyendo las pérdidas que se tenían por las condiciones adversas de los lugares de venta (existencia de barro y tierra).

El tráfico vehicular también ha sido mejorado notablemente con la pavimentación del tercer anillo externo y el revestimiento de los canales de drenaje, el espacio que ocupaban estos últimos se han convertido en lugares de estacionamiento.

Lo que no se ha logrado mejorar es la organización de los vendedores mayoristas, las prácticas de venta y la reglamentación de la utilización de

las instalaciones del mercado.(no se consolidó el Comité de Administración del mercado Abasto)

Con relación a las actividades encomendadas para ser desarrolladas en el área rural, éstas tuvieron un inicio promisorio, pero luego hizo falta asistencia técnica, la misma que fue pedida en agosto de 1995, sin embargo, la misma no fue atendida por falta de un candidato con la especialidad requerida.(según informe de JICA).

La ejecución de las actividades de organización y conformación de unidades piloto de comercialización mejorada, requiere no solo apoyo técnico, sino financiero (durante la realización del Plan Maestro se hizo una pequeña prueba), recursos que en este tiempo no se han tenido.

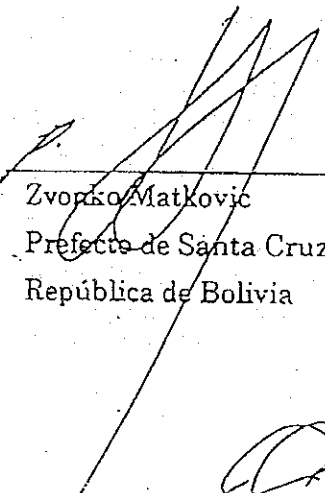
Por todo lo mencionado anteriormente, consideramos que la contraparte local, en la medida de sus posibilidades, ha tratado de cumplir las recomendaciones señaladas en el Plan Maestro, esperando que las autoridades de JICA comprendan que el incumplimiento de algunas de ellas, se debe a nuestras limitaciones y carencias, antes que a negligencias o falta de interés en el proyecto.

Además, el personal técnico contraparte de la Prefectura piensa que con la realización del estudio de factibilidad, el proyecto se consolidará definitivamente y tendrá todo el apoyo institucional que recomienda el Plan Maestro, tanto en el plano local como nacional. Sin embargo, para avanzar en la realización de las actividades recomendadas se requiere ASISTENCIA TECNICA EXTERNA.

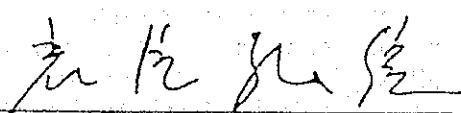
Santa Cruz, Noviembre de 1997

Minuta de Discusiones
sobre
el Alcance de Trabajo
para
el Estudio de Factibilidad sobre el Sistema de Mercadeo Agrícola en Santa Cruz

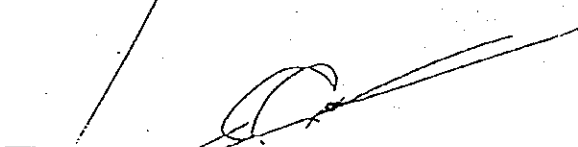
Santa Cruz, 4 de diciembre de 1977



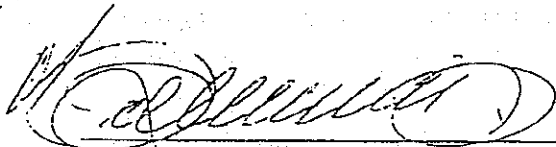
Zvonko Matkovic
Prefecto de Santa Cruz
República de Bolivia



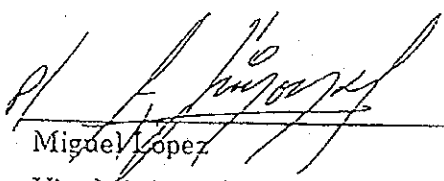
Hironobu Iwakata
Jefe del Equipo del Estudio
Preparatorio de JICA




Luis F. Conde
Ministro de Agricultura,
Ganadería y Desarrollo Rural
República de Bolivia



Johnhy Fernández
Alcalde de Santa Cruz de la Sierra
República de Bolivia




Miguel Lopez
Vice Ministro de Inversión
Pública y Financiamiento Externo
Ministerio de Hacienda
República de Bolivia




El Equipo del Estudio Preparatorio organizado por la Agencia de Cooperación Internacional del Japón (en adelante referido como "JICA") y encabezado por el Lic. Hironobu Iwakata, ha visitado la República de Bolivia del 26 de noviembre al 4 de diciembre de 1997 con la finalidad de discutir y confirmar el Alcance de Trabajo para el Estudio de Factibilidad sobre el Sistema de Mercadeo Agrícola en Santa Cruz (en adelante referido como "el Estudio).


El Equipo del Estudio Preparatorio ha mantenido una serie de discusiones sobre el Alcance de Trabajo del Estudio con los funcionarios de la Dirección Departamental de Desarrollo Sostenible (en adelante referido como "la DDDS") de la Prefectura del Departamento de Santa Cruz y otras organizaciones relacionadas, como del Gobierno Municipal de Santa Cruz de la Sierra, cuyo listado de los participantes de las reuniones se adjunta en el Anexo No. 1.



1. Se ha explicado el desarrollo del mejoramiento del sistema de mercadeo agrícola hasta la fecha en base al Plan Maestro y el documento adjunto ha sido preparado por la DDDS (Anexo No. 2). El Equipo del Estudio Preparatorio y la DDDS han acordado que se debe continuar el mejoramiento, teniéndose muy en cuenta las recomendaciones del Plan Maestro, en el período que abarca antes del comienzo y durante la ejecución del Estudio. También ambas partes han confirmado que, en la implementación del Plan Maestro, la preparación del establecimiento formal y reforzamiento de un cuerpo administrativo para el nuevo mercado será de máxima prioridad.



2. Ambas partes han acordado que las áreas de producción cubiertas por el Estudio incluirán San Isidro, Los Negros, Vallegrande, Camarapa, Saipina, Mairana y Samaipata, mientras que el número de Centros y Subcentros de Acopio y Despacho propuesto dependerá del resultado del Estudio.



3. Ambas partes han acordado que la DDDS tomará las acciones y medidas necesarias para gestionar los recursos financieros requeridos, de parte de instituciones financieras internacionales y/o nacionales incluyendo el FDC, para la implementación de los componentes del proyecto propuestos por el Estudio incluyendo la formación de beneficiarios.



4. Ambas partes han acordado que la DDDS será responsable de la coordinación para




proporcionar toda la necesaria asistencia institucional para llevar a cabo la evaluación del impacto ambiental para el Estudio.

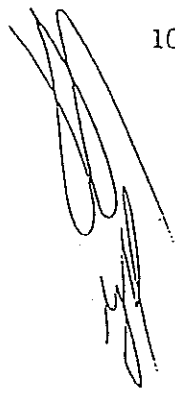
5. Ambas partes han acordado que se debe asignar el personal de contraparte antes del comienzo del Estudio, y los funcionarios de la DDDS que han trabajado como personal homólogo para el Estudio del Plan Maestro (el Estudio del Plan Maestro sobre el Sistema de Mercadeo Agrícola en Santa Cruz, 1995), se quedarán como contraparte para el presente Estudio. También ambas partes han acordado que cada miembro del Equipo del Estudio, especializado en una disciplina técnica, tendrá una persona de contraparte.

6. Ambas partes han acordado que la Prefectura del Departamento de Santa Cruz es la entidad contraparte del Estudio bajo la supervisión y normas del Ministerio de Agricultura, Ganadería y Desarrollo Rural.

7. La DDDS ha solicitado que vehículos, una fotocopidora y un facsímil necesarios para el Estudio sean proporcionados al Equipo del Estudio por el Gobierno del Japón. El Equipo del Estudio Preparatorio ha prometido transmitir esta solicitud al Gobierno del Japón para su consideración.

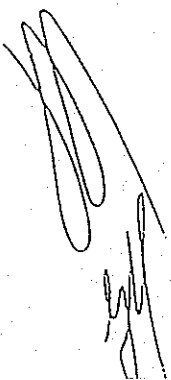
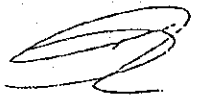
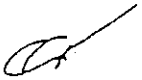
8. La DDDS ha solicitado el entrenamiento del personal de contraparte en Japón. El Equipo del Estudio Preparatorio ha prometido transmitir esta solicitud al Gobierno del Japón para su consideración.



 9. Ambas partes han acordado que una estrecha consulta y colaboración con el Gobierno Municipal de Santa Cruz de la Sierra será mantenida durante el Estudio, con el entendimiento de que el Gobierno Municipal jugará un papel importante en la implementación de los planes de mejoramiento. Después de una discusión tripartita entre el Equipo del Estudio Preparatorio, la Prefectura del Departamento de Santa Cruz y el Gobierno Municipal de Santa Cruz de la Sierra, se ha acordado que este último proveerá el apoyo necesario para el Estudio.

 10. La DDDS ha solicitado que el Estudio comience en mayo de 1998. El Equipo del Estudio Preparatorio ha prometido transmitir esta solicitud al Gobierno del Japón para su consideración.

11. Ambas partes han acordado que el Informe Final del Estudio estará a disposición de todas las partes interesadas en el Estudio.

12. El Alcance de Trabajo y la Minuta de Discusiones han sido redactados tanto en inglés como en español. En caso de que surgiera alguna discrepancia entre los dos textos, la versión inglesa prevalece sobre la española.



Listado de Participantes

Parte Boliviana

Ministerio de Hacienda

| | |
|--------------|----------------------------------------------------------------|
| Miguel López | Vice Ministro de Inversión Pública y Financiamiento Externo |
| Ivón Cuba | Analista Financiera |

Ministerio de Agricultura, Ganadería y Desarrollo Rural

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| Luis Freddy Conde | Ministro |
| Modesto Zaballos | Vice Ministro |
| Lucio Choque | Jefe del Departamento de Planificación |
| Yolanda Murillo | Directora de Apoyo Productivo |
| Héctor Alvarado | Jefe del Departamento de Proyectos |
| Carlos Fuentes | Técnico |

Prefectura del Departamento de Santa Cruz

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| Zvonko Motkovic | Prefecto de Santa Cruz |
| Jorge Aguilera | Director Departamental de Desarrollo Social |
| Kurt Holters | Director Departamental de Desarrollo Sostenible |
| John W. Talavera | Jefe de Unidad de Planificación |
| José Sucre | Jefe de Unidad de Preinversión |
| Guillermo Serrate | Cordinador Proyecto Prefectura |
| Rodolfo Candia | Asesor de Planificación |
| Walter Colbert | Técnico |
| Mario Ribera | Técnico |
| Carlos Barroso | Técnico |

Gobierno Municipal de Santa Cruz de la Sierra

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|-----------------------------|---------------------------------------|
| Johnny Fernández | Alcalde |
| Roger Serrate | Oficial Mayor Administrativo |
| Carlos Eduardo A. Ugarteche | Secretario de Medio Ambiente y Normas |
| Erwin Bass Werner | Asesor |

Parte Japonesa

Equipo del Estudio Preparatorio

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| Hironobu Iwataka | Jefe del Equipo |
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| Teruyuki Nakamura | Especialista de Sistemas de Acopio y Distribución |
| Isamu Iwama | Especialista de Desarrollo con Participación y WID |
| Hajime Nabeta | Coordinador |
| Aki Higuchi | Traductora |

Oficina de JICA en Bolivia

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| Naoki Yanase | Oficial de JICA en Bolivia |
| Carlos Omoya | Jefe de la Sección de Cooperación Técnica |

Oficina de JICA en Santa Cruz

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| Fusayasu Kamiya | Encargado de Cooperación Técnica |
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Expertos de JICA

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| Masaharu Torii | Asesor Planificación de Desarrollo Socio-Económico Regional |
| Mitsuhiko Nakasone | Asesor Dirección de Planificación M.A.C.D.R. |



ESTADO ACTUAL DEL PROYECTO COMERCIALIZACION DE PRODUCTOS
AGRICOLAS DE SANTA CRUZ-BOLIVIA

A continuación se describen las actividades desarrolladas referentes a las recomendaciones realizadas por el Plan Maestro:

1. Con relación al establecimiento del Comité Preparatorio

Para la ejecución de las recomendaciones del Plan Maestro, fue creado este Comité en julio de 1995 mediante un Acuerdo Interinstitucional, el mismo que funcionó regularmente hasta fines de 1995, gracias a esto se lograron realizar importantes obras de mejoramiento en el mercado de Abasto.

En los dos últimos años no fue posible trabajar coordinadamente por los cambios que se dieron tanto a nivel de Gobierno (Descentralización administrativa), como en el Municipio por los resultados de las elecciones, lo que afectó la coordinación que se mantenía hasta entonces con las anteriores autoridades. Pero, aun así se logró realizar las obras de mejoramiento del mercado Abasto.

2. El Plan de mejoramiento del sistema de distribución a nivel mayorista.

Al respecto, el Comité logró el apoyo del Gobierno Municipal de la ciudad en la priorización de las obras de mejoramiento del actual mercado de Abasto, con la finalidad de mejorar las condiciones del manejo de las instalaciones del mercado y el expendio de productos, las obras ejecutadas fueron las siguientes:

- Pavimentación, enlosetado e iluminación de 3595 metros cuadrados
- Embardado de todo el perímetro del mercado
- Construcción de aceras
- Entubado para el drenaje interior de entrada
- Alcantarillado de 161 metros de pasillo.

El costo total de todas estas mejoras asciende a sus 301.000

Con estas obras, se han mejorado sustancialmente las condiciones físicas e higiénicas del expendio de productos, mejorando la calidad de los productos y disminuyendo las pérdidas que se tenían por las condiciones adversas de los lugares de venta (existencia de barro y tierra).

El tráfico vehicular también ha sido mejorado notablemente con la pavimentación del tercer anillo externo y el revestimiento de los canales de drenaje, el espacio que ocupaban estos últimos se han convertido en lugares de estacionamiento.

Lo que no se ha logrado mejorar es la organización de los vendedores mayoristas, las prácticas de venta y la reglamentación de la utilización de

las instalaciones del mercado.(no se consolidó el Comité de Administración del mercado Abasto)

Con relación a las actividades encomendadas para ser desarrolladas en el área rural, éstas tuvieron un inicio promisorio, pero luego hizo falta asistencia técnica, la misma que fue pedida en agosto de 1995, sin embargo, la misma no fue atendida por falta de un candidato con la especialidad requerida.(según informe de JICA).

La ejecución de las actividades de organización y conformación de unidades piloto de comercialización mejorada, requiere no solo apoyo técnico, sino financiero (durante la realización del Plan Maestro se hizo una pequeña prueba), recursos que en este tiempo no se han tenido.

Por todo lo mencionado anteriormente, consideramos que la contraparte local, en la medida de sus posibilidades, ha tratado de cumplir las recomendaciones señaladas en el Plan Maestro, esperando que las autoridades de JICA comprendan que el incumplimiento de algunas de ellas, se debe a nuestras limitaciones y carencias, antes que a negligencias o falta de interés en el proyecto.

Además, el personal técnico contraparte de la Prefectura piensa que con la realización del estudio de factibilidad, el proyecto se consolidará definitivamente y tendrá todo el apoyo institucional que recomienda el Plan Maestro, tanto en el plano local como nacional. Sin embargo, para avanzar en la realización de las actividades recomendadas se requiere ASISTENCIA TECNICA EXTERNA.

Santa Cruz, Noviembre de 1997

