

USAID/GOVERNMENT OF MOROCCO

MOROCCO AGRIBUSINESS PROMOTION PROJECT

ANNUAL REPORT NUMBER - 5

Contractor Development Alternatives, Inc

Contract # 608-C- 00-92-00044

Reporting Period *through March 1998* MAPP-25

**I DEVELOPMENT ALTERNATIVES, INC ANNUAL REPORT**

**A NARRATIVE SECTION**

**1 BACKGROUND**

At the highest level of objectives, the Morocco Agribusiness Promotion Project (MAPP) is expected to increase the contribution of the agribusiness sector to Gross Domestic Production, foreign exchange earnings, and employment Through DAI's efforts MAPP will improve the ability of Moroccan agribusinesses to produce and market their products both domestically and in foreign markets The DAI contract is a completion-type contract with a total estimated cost plus fixed fee of \$13,437,702

**2 EXPECTED RESULTS**

In 1995, halfway through the life of the project, USAID restructured the terminology and the measures of program impacts The MAPP project is highly consistent with the strategic objectives of the Mission, especially Strategic Objective 3, which seeks to increase the participation of lower income groups, especially women, in the benefits of economic growth MAPP's work with horticultural crops, which are high in value and in labor content, is a significant leverage point on the creation of sustainable and competitive employment for people below median income in both rural and urban settings Its focus on exportable horticultural crops to non-traditional markets provides triple benefits to Morocco and Moroccans increased generation of foreign exchange, access to U S technology, and improvement in the fresh, frozen and processed fruit and vegetable products available for local consumption in Morocco Finally, the project s work with public regulators, supporting institutions, and associations and groups from the private sector increases the ability of Moroccan agribusiness to continue to adapt to changes in world and domestic marketplaces

Figure 1 shows MAPP performance since 1994 at the Strategic Objective (SO) and the Intermediate Results (IR) levels of the USAID Mission's Country Plan In 1997, we met or exceeded all of our SO and IR targets By the first quarter of 1998 we are at 72

percent of the project's annual job generation target and at 55 percent of the project's annual export sales projections. We have exceeded our contract's workplan targets for 1998 have been exceeded.

DAI in its proposal and workplans laid out a set of specific objectives tied to the task areas of the contract. Following the mid-term evaluation and subsequent planning with the Mission, the contract was modified to eliminate two tasks and to redefine the remaining eight tasks to focus on the establishment of 10 joint production or marketing ventures, the opening of 8 new markets for Moroccan products, and the transfer of 4 technologies that affect capital or labor productivity.<sup>1</sup> With 12 joint production or marketing ventures, 12 new markets opened, and more than 15 technologies transferred we have met or exceeded all contract objectives.

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<sup>1</sup> Task 5, Financial Services Improvement and Task 9, Privatization, were eliminated and the remaining tasks renumbered as part of the MAPP contract revision signed in April 1997.

Figure 1

## FIGURE 1 INDICATEURS DE LA PERFORMANCE DU PPAM

|  | Année de Base | 1994      | 1995                           | 1996                                     | 1997 (est)                             | 1998 (est)                          |
|--|---------------|-----------|--------------------------------|--|--|-------------------------------------|
| SO3 1 a Années d'emploi générées (1)                       | 0             | 2 126     | 2 582                          | 4 287                                    | 2 704<br>(to 12/97 - 5 011)            | 2 107<br>(to 3/98 - 1 521)          |
| SO3 1 b dont emploi féminin                                | 0             | 1 157     | 1 109                          | 1 749                                    | 1 300<br>(to 12/97 - 2 111)            | 1 075<br>(to 3/98 - 648)            |
| IR3 1 Politiques/règlements améliorés incluant             |               |           |                                |  |  |                                     |
| - réduction des surcoûts TIR ( FF)                         | 18 000        | 18 000    | 18 000                         | 10 875                                   | 10 000                                 | 10 000                              |
| - Adoption/Exécution des règlements sur l'hygiène aliment  | -             | -         | translate FDA<br>regs train    | circulate FDA regs<br>BPCS training done | adopt updated<br>Moroccan regs         | implement<br>modified regs          |
| - Admissibilité de la tomates rouge marocaine aus EUA      | -             | -         | devt trapping/<br>infest plans | tnals completed<br>jt plan of work devd  | auth to export<br>(USDA DELAY TO 2/98) | exports begin                       |
| - Protection des droits d'obteneurs et d'obtentions        | -             | -         | lobbying                       | law passes                               | implementation                         | implementation                      |
| - Amélioration de contrats de cultures                     | -             | -         | diagnostic                     | devt/test models                         | arbit conference<br>dist of materials  | contracts in use                    |
| IR3 4 1 Ventes aidées par PPAM (\$)                        | 0             | 7 111 113 | 14 891 784                     | 20 185 398                               | 14 750 000<br>(to 12/97 - 24 745 32)   | 11 450 000<br>(to 3/98 - 6 314 000) |
| IR3 4 1 1 dont aux EUA                                     | 0             | 804 908   | 1 018 602                      | 3 612 530                                | 4 000 000<br>(to 12/97 - 7 126 200)    | 6 200 000<br>(to 3/98 - 181 300)    |
| IR3 4 1 2 dont aux marchés non-traditionnels (2)           | 0             | 5 710 205 | 10 802 682                     | 18 103 120                               | 8 750 000<br>(to 12/97 - 19 995 70)    | 4 250 000<br>(to 3/98 - 4 863 500)  |
| IR3 4 1 3 dont produits de diversification (3)             | 0             | 4 837 213 | 5 872 154                      | 9 759 461                                | 5 162 500<br>(to 12/97 - 17 000 00)    | 4 007 500<br>(to 3/98 - 3 368 100)  |
| IR3 4 2 a Nouveaux produits/technologies introduits (cum ) | 0             | 18        | 34                             | 41                                       | 45                                     | 45                                  |
| IR3 4 2 b Sociétés adoptantes (cum )                       | 0             | 46        | 91                             | 137                                      | 155                                    | 185                                 |

(1) Estimations finaux Données pour 1994 et 1995 révisées en 1996 Données sur années d'emploi générées Pas de présumé sur la durabilité de l'emploi

(2) Marchés non traditionnels sont définis comme marchés qui ont absorbée moins de 10% des exportations dans l'année de base 1991/92

(3) Produits de diversification sont définis comme produits qui ont comptés pour moins de 2% (par volume) des exportations horticoles (agrumes exceptées) en 1991/1992 Ils comprennent tous les produits horticoles sauf tomates de primeurs et pommes de terre primeurs

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### **3 PROGRESS TOWARDS ACHIEVEMENT OF PURPOSE AND OUTPUTS**

This section describes the status of progress towards achievement of purpose and outputs at the end of March 1998 or 96 percent of our six-year contract. We report contract progress at the Strategic Objective and Intermediate Results levels of the project, as defined by USAID, since the third quarter of 1996. We continue to track outputs against targets established early in the project to help us manage the many activities that generate the higher order results that the Moroccan Government and USAID program seek.

#### **3.1 Intermediate Results Level of Performance**

Figure 1 summarizes performance in job creation, policy advocacy and sales. We are at 135 percent of our total job generation targets for the 18-month 1997 and 1998 workplan period. We are at 116 percent of our female employment objective. We are at 119 percent of our workplan export sales target. Market diversification is proceeding very well. US sales are 72 percent of the overall MAPP projects 1997 and 1998 target. As the project ends on June 30, 1998, we will not be able to provide complete sales information for the second quarter of 1998, nor any sales information for the third and fourth quarter of the year.

#### **3.2 Output Indicators**

The following section discusses progress against output measures by task up through March 1998. Output measures are given in Figure 2. Task numbers follow our April 1997 contract modification.

- **Task 1 Increased Foreign Investment** Annex 1 lists the subsector reports and subsector update reports. The status of joint ventures and marketing ventures is given later in this section. Our focus during this quarter was on strengthening and expanding Village Farms of Morocco operation, PhF Morocco activities, and the CASEM-EMCO-Cal high-altitude strawberry nursery. Fintrac Inc.'s Richard Abbott and Roy Bosley, ICEA-Enterprises' Claude Falgon, and, Moroccan consultant Jamila Safouane, began the final field and synthesis of the prefeasibility study for integrated production and processing of potatoes. Don Humpal continued work on the Nopalitos prefeasibility study. Tom Lenaghan worked with Fintrac on recruitment and set-up of the apricot processing prefeasibility study, and with AgroConcept on the organization of the grain legume mechanization study.

Figure 2 AMI/DAI

| PROGRESS TO OUTPUTS                                |                                  | PERCENT CONTRACT |                            | 96%                      |                     |      |
|--|----------------------------------|------------------|----------------------------|--------------------------|---------------------|------|
| TASK   | OUTPUT MEASURE                   | LOC TARGET       | CUMULATIVE PROGRESS        | AMT                      | PERCENT ACHIEVEMENT |      |
| 1 AUGMENT FOREIGN INVESTMENT                       | Subsector Studies                | 8                | Olives/primeurs/flowers/sp | 9 5                      | 119%                |      |
|  | Prefeasibility Studies           | 8                | Mobile IQF Nopalitos ( 75  | 3 75                     | 47%                 |      |
|  | Company Presentations            | 200              |                            | 214                      | 107%                |      |
|  |                                  | U S              | 150                        | Briefings at U S compani | 158                 | 105% |
|  |                                  | Other            | 50                         | Czech firm French Spani  | 56                  | 112% |
| 2 DIVERSIFY AGBIZ TRADE                            | U S Firms Contacted              | 1500             | Mail+phone with some me    | 1421                     | 95%                 |      |
|  | European Firms Contacted         | 1500             | Results of Eurotours trad  | 1513                     | 101%                |      |
|  | Other Firms Contacted            | 50               | Increasing Asian and Midd  | 108                      | 216%                |      |
|  | U S Firms Visiting               | 150              | Mix of buyers and investor | 122                      | 81%                 |      |
|  | European Firms Visiting          | 50               | Mainly buyers              | 69                       | 138%                |      |
|  | Other Firms Visiting             | 10               | Mix of buyers and investor | 16                       | 160%                |      |
|  | Moroccan Firms to USA            | 50               | Organized meetings/plant   | 117                      | 234%                |      |
| 3 IMPROVED APPLIED TECHNOLOG                       | Production/Pkg/Processing        | 4                | Tomato shrink wrap fruit l | 15                       | 375%                |      |
|  | Firms Adopting                   | 20               | Modified atmos pilot tests | 81                       | 405%                |      |
|  | Product Marketing Strategies     | 6                | Pizza Component Cleann     | 18                       | 300%                |      |
|  | Firms New Market/Biz Plans       | 10               | New business plans for a   | 19                       | 190%                |      |
|  | Process Controls                 | 60               | Firms with programs start  | 52                       | 87%                 |      |
|  | Firms in FDA/EACCE Compliance    | 10               | FCE and Accepted Proces    | 20                       | 200%                |      |
| 4 REINFORCE INDUSTRY ORGS AND SUPPORT INSTITUTIONS | Association/Group Plans          | 6                | AMPEXFLEURS FICOPA         | 6                        | 100%                |      |
|  | Membership Info Services         | 4                | Market Information Fax an  | 3                        | 75%                 |      |
|  | DPAE Industry Info Study         | 1                | Casa Marche du Gros +5     | 1                        | 100%                |      |
|  | DPVCTRF Improved Cert Plan       | 1                | Detailed Workplan Revise   | 0 8                      | 80%                 |      |
|  | DPV Agbiz Database               | 1                | MAMVA/DPV initiates priv   | 0 6                      | 60%                 |      |
| 5 ENHANCING HUMAN RESOURCES                        | LT Degree Programs               | 3                | M S Ag Econ done Ph D      | 1                        | 33%                 |      |
|  | ST Advanced Training Program     | 6                | Course Catalogue develop   | 2                        | 33%                 |      |
|  | ST Industrial Interns            | 6                | Biotechnology cancelled    | 3                        | 50%                 |      |
|  | Study Observation Tours          | 30               | NASDA Delegation NRS       | 28                       | 93%                 |      |
|  | Moroccans on Study/IA Tours      | 90               | Trade Show IA Show Org     | 144                      | 160%                |      |
|  | Workshops                        | 20               | Kick Off Conference 3 FD   | 53                       | 265%                |      |
| 6 IMPROVING THE POLICY/REGULATORY ENVIRONMENT      | Policy/Regulatory Reports        | 11               | Transport Study + Post G   | 10                       | 91%                 |      |
|  | Dissemination Seminars/Workshops | 11               | Transport Gatt Gatt X2     | 11                       | 100%                |      |
| 7 ADMINISTER THE PROMOTION AND INVESTMENT FUND     | Small Cost Share Requests        | 90               | Several companies have p   | 35                       | 39%                 |      |
|  | Large Cost Share Requests        | 10               | Modified Atmosphere Spe    | 23                       | 230%                |      |
|  | Acceptable Applications          | 75               | Nat Pak Avon Val Maroc     | 21                       | 28%                 |      |
|  | Amount Awarded                   | 2000000          |                            | 737000                   | 37%                 |      |
|  | Cost/Services Leveraged          | 2000000          |                            | 1556988                  | 78%                 |      |
|  | Pre Investment Activities        | 50               |                            | 12                       | 24%                 |      |
| 8 MANAGEMENT AND ADMINISTRATION                    | LT Staffing Completed (FTE)      | 6                |                            | 6                        | 100%                |      |
|  | Communication Systems            | 1                | LAN fully functional       | 1                        | 100%                |      |
|  | Timely Reports                   |                  |                            |                          |                     |      |
|  | Workplans                        | 5                |                            | 4                        | 80%                 |      |
|  | Qtrly Reports                    | 17               |                            | 13                       | 76%                 |      |
|  | Annual Reports                   | 5                |                            | 0                        | 0%                  |      |
|  | End of Project Report            | 1                |                            |                          |                     |      |
|  | Late Reports                     |                  |                            |                          |                     |      |
|  | Workplans                        | 5                |                            | 1                        | 20%                 |      |
|  | Qtrly                            | 18               |                            | 4                        | 22%                 |      |
|  | Annual                           | 5                |                            | 5                        | 100%                |      |
| End of Project Report                              | 1                                |                  |                            |                          |                     |      |

- **Task 2 Diversification of Agribusiness Trade** The first quarter of 1998 was notable for the intensity of industry tours to the USA. An ornamental industry tour built around World Flora in Atlanta in January, the Wholesale Market Tour to Florida and New York organized with the University of Minnesota in February and the Packaging and Postharvest Handling Tour in Dallas, Texas and Nogales Arizona also in February, strengthened our concentration on North American market development. We organized our last stand participation in the Salon Alimentaire du Maroc in March 1998, offering space to the US Ag Attache and serving as a working platform for five visiting US firms. Organization of Moroccan stands for the Food Ingredients Asia Show continued. Finally, a survey of North American buyers was organized for the last quarter of the project.
  
- **Task 3 Technology and Management Method Transfer**  
 Dr. Marita Cantwell of UC Davis returned to Morocco to follow up on the implementation of recommendations from the 1997 postharvest workshops with greenhouse growers and packing stations. Purdue University's Dr. Jim Chambers continued work with Don Humpal and Rachida Youmouri on the preparation 1998 Frozen Fruit and Vegetable Workshop, which was rescheduled to the end of April following rescheduling of SAM '98. Don continued work with SASMA, US firms, and USDA/ARS on the analysis of Fall trials of a new fruit fly control agent called SureDye. Additional trials were planned for May. Comments were received from all parties but the Ministry of Agriculture on the Asparagus Production Manual. The Spice Cleaning Workshop was rescheduled for May. The Forced Air Cooling Workshop was canceled as the equipment was not scheduled for delivery until May 22. Annex 2 provides a summary of technology introductions (project supported) and transfers (technologies which now have established commercial circuits in Morocco).
  
- **Task 4 Reinforcement of Industry Organizations and Support Institutions**  
 Don Humpal worked with USDA, MAMVA, Moroccan and US firms throughout the quarter on the industry and regulatory issues related to the export of Morocco red tomatoes to the USA. The public comment period on the phytosanitary rule change closed on December 15, 1998, but by the end of the first quarter of 1998 USDA/APHIS had not completed its work on responses to the questions posed by Florida and California. Allen Fleming and Don worked in January with USDA consultant Eric Gaillard on the EACCE information system project. In early February with Dr. Mike Wehr, USDA consultant, on the final evaluation of the EACCE pesticide laboratory and the interim evaluation of management of the DPVCTRF's Plant Quarantine Laboratory in Bouznika. USAID Director Mike Farbman and Economic Growth Division Chief Jerry Cashion visited EACCE to witness the completion of the laboratory and the start-up of the information system. Allen Fleming and Don Humpal also assisted Ms. Jennifer Harte, USDA consultant in a consultancy to the DPV on the agribusiness promotion cell.
  
- **Task 5 [ex-Task 6] Human Resource Enhancement** The University of Minnesota continued its supervision of participant trainees in graduate programs. The second M.S. degree candidate, Mr. Kamili of the DPAE, has maintained high

grades and his thesis committee reviewed his thesis work during the quarter Mr Sedegui, a University of Delaware Ph D candidate from the DPVCTRF, made his last visit to Morocco to collect Phytophthora races in February returning to the USA to complete his trial program and thesis

- **Task 6 [ex-Task 7] Improving the Policy and Regulatory Environment** Don Humpal worked with DPVCTRF and the horticultural industry on follow-up for the implementing decrees of the plant variety and breeder rights law passed in May 1997 Allen Fleming worked with ABSP staff on next steps for varietal registration plant breeder property rights and biosafety work Don worked with exporters, transporters, and customs on combined transport procedures for the 1998/99 export season to enable negotiations with air freight charter companies to move forward
- **Task 7 [ex-Task 8] Promotion and Investment Fund** AMI/DAI staff spent significant effort working on PIF projects during this quarter Elsargane increased its activity Taromed and Nectarome PIF's moved into implementation With the increase of temperatures in the mountains, CASEM was able to restart its high-altitude nursery operations Les Fermes de Levant continued work on its Agadir center and its isolation, testing, and development of mycorrhizal inoculants The Steering Committee approved reprogramming of PIF funding for support to IAV Hassan II in the food technology program, EACCE's proposed packaging laboratory, a DPVCTRF Integrated Pest Management program, an olive oil quality control laboratory for the Agricultural Technicians Institute near Taounate, and an extension of the SASMA PIF on Red Tomato medfly infestation
- **Task 8 [ex-Task 10] Management, Administration, Communications** Mr Rodrigo Brenes, Agribusiness Specialist, resigned for personal reasons from the project in early March 1998 Mr Thomas Lenaghan a DAI staff member, replaced him as Agribusiness Specialist on a TDY basis in March 1998 Ms Erika Kirwen, DAI Project Associate, performed a consultancy to help develop the project phase-out and close-down plan

### 3 2 a Discussion by Purpose Level Category

#### NEW MARKETS DEVELOPING TRADE PARTNERSHIPS-THE STURDIEST FORM OF CAPACITY BUILDING - Task 2

We surpassed our contract objective of opening eight new markets in 1994 before the halfway mark of our 71-month contract. By the second quarter of 1997, a total of twelve new markets were opened. Sales volumes on an FOB basis by calendar year are shown below.

|   |              |
|---|--------------|
| 1993                                      | \$16,000     |
| 1994                                      | \$7,111,000  |
| 1995                                      | \$14,891,000 |
| 1996                                      | \$20,185,396 |
| 1997                                      | \$24,745,320 |
| 1998 to the end of March                  | \$6,314,000  |
| Cumulative Total to the end of March 1998 | \$73,262,716 |

We track new market penetration on an actual sales basis. We only count what has actually been sold, not what has been ordered or committed. We only count those trades in which we have been involved in the identification of buyer and seller.

Figure 3 provides first quarter 1998 data. Figure 4 gives results from the first quarter in graphic form.

Increased and diversified trade maintains existing employment and stimulates job creation among USAID's target population. Figure 5 recaps value added and employment generation figures for our contract. These figures reflect only part of the direct benefits from export sales.

Figure 3

EXPORTATIONS AIDEES PAR AMI/DAI 1er TRIMESTRE 1998  
31 mars 1998

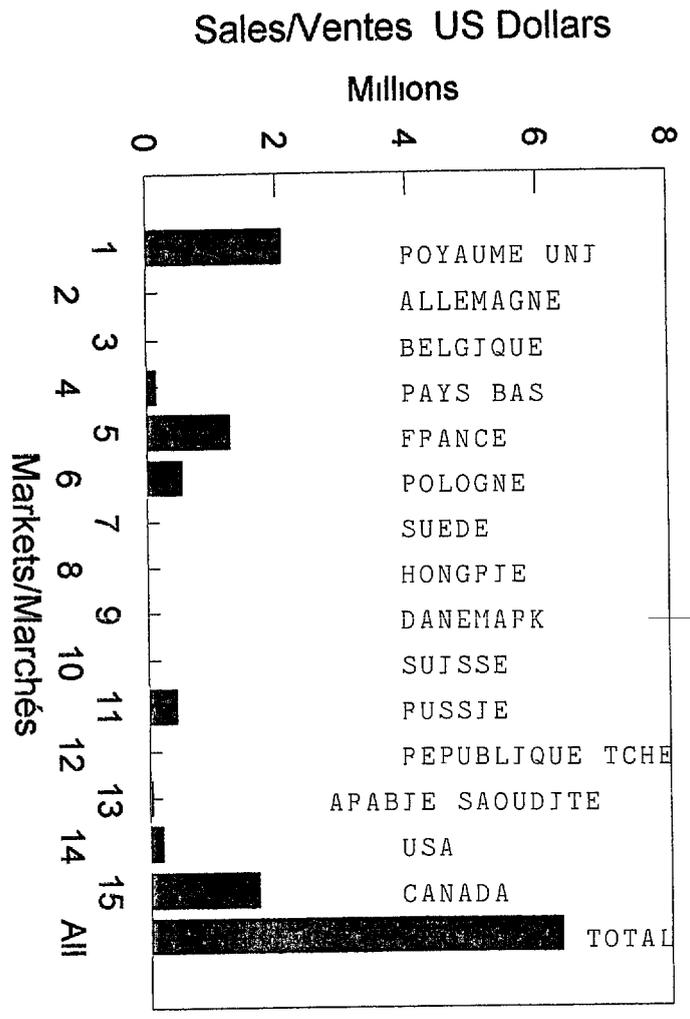
| PRODUIT EXPORTE    | QUANT   | PRIX     | VALEUR      | MONNAIE  | \$ US       | DATE    | MARCHE         |
|--------------------|---------|----------|-------------|----------|-------------|---------|----------------|
| Trades by Product  | Kgs     | Prce     | Total Value | Currency | USD Equiv   | Date    | Market         |
| Tomates primeurs   | 336 000 | 2 6      | 873 600     | CAN \$   | \$620 256   | Jan Mar | Canada         |
| Tomates primeurs   | 252 000 | 3 1      | 781 200     | CAN \$   | \$554 652   | Jan Mar | Canada         |
| Tomates primeurs   | 192 000 | 2 5      | 480 000     | CAN \$   | \$340 800   | Jan Mar | Canada         |
| Tomates primeurs   | 93 600  | 2 15     | 201 240     | CAN \$   | \$142 880   | Jan Mar | Canada         |
| Tomates primeurs   | 292 500 | 6 2      | 1 813 500   | FF       | \$326 757   | Jan Mar | Poland         |
| Tomates primeurs   | 195 000 | 5 8      | 1 131 000   | FF       | \$203 784   | Jan Mar | United Kingdom |
| Tomates primeurs   | 214 500 | 5 3      | 1 136 850   | FF       | \$204 838   | Jan Mar | Poland         |
| Tomates primeurs   | 107 250 | 0 87     | 93 308      | USD      | \$93 308    | Jan Mar | Holland        |
| Tomates primeurs   | 429 000 | 0 98     | 420 420     | USD      | \$420 420   | Jan-Mar | Russia         |
| Tomates primeurs   | 31 200  | 1 2      | 37 440      | USD      | \$37 440    | Jan_Mar | Saudi Arabia   |
| Frases fraîches    | 320 000 | 22       | 7 040 000   | FF       | \$1 268 468 | Feb-Mar | France         |
| Frases fraîches    | 495 000 | 21       | 10 395 000  | FF       | \$1 872 973 | Feb-Mar | United Kingdom |
| Oeillets/Mins      | 30 266  | 3 75     | 113 498     | USD      | \$113 498   | Jan-Mar | USA            |
| Pomrons grillés    | 1 040   | 2 25     | 2 340       | USD      | \$2 340     | Feb     | USA            |
| Olives Vertes      | 16 000  | 1 3125   | 21 000      | USD      | \$21 000    | Jan Mar | USA            |
| Olives Vertes      | 11 520  | 1 4308   | 16 481      | USD      | \$16 481    | Jan Mar | USA            |
| Olives Vertes      | 11 200  | 1 25     | 14 000      | USD      | \$14 000    | Jan Mar | USA            |
| Olives Vertes      | 11 200  | 1 25     | 14 000      | USD      | \$14 000    | Mar     | USA            |
| Bière (conteneurs) | 3       | 15126 67 | 45 380      | USD      | \$45 380    | Feb     | Netherlands    |

VENTES TOTAL POUR 1ER TRIMESTRE

|                         | 1           | 2        | 3        | 4         | 5           | 6         | 7        | 9        | 10          | 11        | 12        | 13         | 14        | 15          | All          |
|-------------------------|-------------|----------|----------|-----------|-------------|-----------|----------|----------|-------------|-----------|-----------|------------|-----------|-------------|--------------|
|                         | Market 1    | Market 2 | Market 3 | Market 4  | Market 5    | Market 6  | Market 7 | Market 9 | Market 10   | Market 11 | Market 12 | Market 13  | Market 14 | Market 15   | All Markets  |
|                         | UK          | Germany  | Belgium  | Holland   | France      | Poland    | Sweden   | Denmark  | Switzerland | Russia    | Czech Rep | Saudi Arab | USA       | Canada      | Total        |
| 1st Quarter/ 1er Trimes | \$2 076 757 | \$0      |          | \$138 688 | \$1 268 468 | \$531 595 |          |          |             | \$420 420 |           | \$37 440   | \$181 318 | \$1 658 588 | \$6 313,274  |
| 2eme Trimestre          | \$0         |          | \$0      |           | \$0         |           |          |          |             |           |           |            | \$0       |             | \$0          |
| 3eme Trimestre          | \$0         |          |          |           | \$0         |           |          |          |             |           |           |            | \$0       |             | \$0          |
| 4eme Trimestre          | \$0         | \$0      | \$0      | \$0       | \$0         |           |          |          | \$0         |           |           |            | \$0       | \$0         | \$0          |
| Cumulative Total        | \$2 076 757 | \$0      | \$0      | \$138 688 | \$1 268 468 | \$531 595 | \$0      | \$0      | \$0         | \$420 420 | \$0       | \$37 440   | \$181 318 | \$1 658 588 | \$6 313,274  |
| Marketing Target        |             |          |          |           |             |           |          |          |             |           |           |            |           |             | \$11 450 000 |
|                         |             |          |          |           |             |           |          |          |             |           |           |            |           |             | CUM %        |
|                         |             |          |          |           |             |           |          |          |             |           |           |            |           |             | 55 14%       |

# Figure 4. Quarterly Sales 1998

Ventes par trimestre de 1998



■ 1st Quarter / 1er Trimestre

IMPACT OF MAPP ON EMPLOYMENT AND VALUE ADDED

| Value Added (US\$ 000) /1 | 1994         | 1995         | 1996         | 1997          | 1998         | TOTAL         |
|---------------------------|--------------|--------------|--------------|---------------|--------------|---------------|
| Frozen Strawbernes        | 3,216        | 1,123        | 582          | 1,913         |              | 6 834         |
| Frozen Peppers            | 0            | 121          | 413          | 0             |              | 534           |
| Other Frozen Products     |              |              |              |               |              |               |
| Early Potatoes            | 158          | 362          | 397          | 588           |              | 1 506         |
| Fresh Strawbernes         | 878          | 94           | 1 849        | 1 905         | 1 864        | 4 723         |
| Melons (Gala)             | 4            | 569          | 1,319        | 238           |              | 2 130         |
| Early Tomatoes            | 451          | 3,187        | 3 257        | 2 915         | 1 808        | 9 810         |
| Apricot Pulp              | 268          | 58           | 167          | 203           |              | 696           |
| Roses                     | 253          | 148          |              |               |              | 399           |
| Carnations                | 118          | 71           | -            | 139           | 99           | 329           |
| Green Peppers             | 0            | 0            | 415          | 204           |              | 619           |
| Table Olives/Olive oil    | 0            | 100          | 1,369        | 2,316         | 43           | 3,785         |
| <b>TOTAL</b>              | <b>5,344</b> | <b>5,832</b> | <b>9,769</b> | <b>10,420</b> | <b>3,815</b> | <b>31,364</b> |

| Total Employment (in job-years)   | Male       | Female       | Total        | Male         | Female       | Total        | Male         | Female       | Total        | Male         | Female       | Total        | Male       | Female     | Total        | Male         | Female       | Total         |
|-----------------------------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|------------|--------------|--------------|--------------|---------------|
| Frozen Strawbernes                | 507        | 778          | 1,285        | 122          | 233          | 355          | 75           | 128          | 203          | 254          | 447          | 701          |            |            |              | 959          | 1,585        | 2 544         |
| Frozen Peppers                    | 0          | 0            | 0            | 36           | 46           | 82           | 0            | 0            | 0            | 0            | 0            | 0            |            |            |              | 36           | 46           | 82            |
| Other Frozen Products             | 14         | 14           | 29           | 31           | 31           | 62           | 7            | 7            | 13           | 0            | 0            | 0            |            |            |              | 52           | 52           | 104           |
| Early Potatoes                    | 29         | 24           | 53           | 63           | 51           | 114          | 70           | 57           | 128          | 112          | 91           | 202          |            |            |              | 273          | 222          | 495           |
| Fresh Strawbernes                 | 163        | 187          | 350          | 16           | 19           | 35           | 324          | 372          | 696          | 361          | 414          | 775          | 249        | 285        | 534          | 1,113        | 1,239        | 2 352         |
| Melons (Gala)                     | 1          | 1            | 2            | 120          | 77           | 198          | 283          | 181          | 464          | 55           | 35           | 90           |            |            |              | 460          | 294          | 754           |
| Early Tomatoes                    | 144        | 81           | 225          | 948          | 532          | 1,480        | 983          | 551          | 1 534        | 951          | 534          | 1,485        | 603        | 338        | 941          | 3,629        | 2,300        | 5 929         |
| Apricot Pulp                      | 60         | 29           | 89           | 13           | 6            | 18           | 48           | 21           | 69           | 75           | 31           | 106          |            |            |              | 197          | 86           | 283           |
| Roses                             | 38         | 18           | 56           | 20           | 10           | 30           | 0            | 0            | 0            | 0            | 0            | 0            |            |            |              | 58           | 28           | 86            |
| Carnations                        | 7          | 21           | 28           | 4            | 12           | 16           | 0            | 0            | 0            | 8            | 23           | 31           | 6          | 18         | 24           | 25           | 61           | 86            |
| Green Peppers/Zucchini            |            |              | 0            |              |              | 0            | 105          | 102          | 207          | 10           | 11           | 21           |            |            |              | 115          | 113          | 228           |
| Table Olives/Olive oil            | 0          | 0            | 0            | 20           | 13           | 33           | 530          | 218          | 748          | 941          | 393          | 1,334        | 11         | 7          | 18           | 1,502        | 634          | 2 137         |
| Other Fresh or Preserved Products | 5          | 5            | 10           | 80           | 80           | 160          | 113          | 113          | 227          | 133          | 133          | 267          | 5          | 0          | 5            | 336          | 336          | 672           |
| <b>TOTAL</b>                      | <b>970</b> | <b>1,157</b> | <b>2,127</b> | <b>1,473</b> | <b>1,109</b> | <b>2,582</b> | <b>2,538</b> | <b>1,749</b> | <b>4,287</b> | <b>2,901</b> | <b>2,111</b> | <b>5,011</b> | <b>873</b> | <b>648</b> | <b>1,521</b> | <b>8,755</b> | <b>6,998</b> | <b>15,753</b> |

/1 1994\$US = 9 1 Dh  
 /1 1995\$US = 8 5 Dh  
 /1 1996\$US = 8 6 Dh  
 /1 1997\$US = 9 3 Dh  
 /1 1998\$US = 9 5 Dh

Female Employment

44 4%

AMI/DAI focused its first quarter efforts in 1998 in consolidating its promotional activities in the USA and Asia. The ornamental plant industry tour structured around the World Flora 1998 show in Atlanta in January, permitted four Moroccans to develop sources for plants and supplies for their nurseries in Georgia, Florida, and California. The University of Minnesota provided organizational assistance to this tour for which Moroccan firms were mobilized by Rachida Youmouri of AMI/DAI.

Rachida, Rodrigo Brenes, and Melissa Graham worked with the University of Minnesota in January and February to set up the Wholesale Market Tour for a group of nine Moroccans from the private sector, associations, and the Ministry of Agriculture. The main objective was helping the Moroccans to understand the functioning of US Wholesale Terminal Markets and their linkage to import operations, phytosanitary and other inspections, and US markets for fresh produce. The group worked through the Port of Miami, APHIS and the Agricultural Marketing Service, farmers' markets in the region, and grower/packer/shipper operations. From Florida they moved to New York City to visit the Hunt's Point Terminal Market operators and regulators and the new airport operations of RAM at JFK. Melissa Graham, Rachida Youmouri, and Don Humpal set up a special tour by four Moroccan sector representatives to the United Fresh Fruit and Vegetable Association Annual Meetings in Dallas, Texas in February. The focus was on postharvest operations, transport, and storage. Participants were assisted by Dr. Norm Oebker and Kamal Didian of the U of Arizona at the exposition and on visits to the Dallas Farmers Market. The highlight of the visits was a trip to the Nogales Terminal Market in Arizona, the main crossing point for Mexican winter fruit and vegetables entering the USA or transiting to Canada. Morocco is developing similar platforms to export winter fruits and vegetables to Europe and to provide a better wholesale market infrastructure domestically. The returning participants from both tours said that they had concluded that Morocco must have a concerted approach to succeed in exporting fresh produce to the USA, built upon agreements with US firms already in the wholesale and supermarket distribution channels.

Rachida Youmouri and AMI/DAI staff organized our last stand at the Salon Alimentaire du Maroc from March 19-21 in Casablanca. We offered space to the U S Ag Attache, who has been a co-exhibitor with us in a number of Moroccan shows. We used the stand as a platform for 5 U S firms seeking Moroccan processed and fresh products. We ran continuous samplings of olive oil, olives, white truffles, potato and corn-based snack foods of the new General Mills licensee in Morocco - El Halabi - and we rolled out the Elsargane Argania line of argan oil. We estimate that more than 4000 visitors came to our stand this year.

The export of tomatoes to Canada through March stayed at about the same level as the 1996/97 season. The exporting groups continued to send some tomatoes by boat and, more successfully, by container. However, air-shipped tomatoes continued to obtain the best prices. Towards the end of the season in late March it was clear to us and much of the industry that shipping by air is the only reliable way to maintain tomato value in transatlantic transit. Since RAM has insufficient capacity, it appears that only a truck-air link via Europe will provide enough space at costs permitting elimination of current Moroccan air transport subsidies over the next five years.

We released the French version of the European Union Buyer's Survey in this quarter. The results show strength based on competitive prices and good quality. However, there is a great need to improve business practices, and the cleanliness of certain products such as dried herbs and spices and some frozen products.

Don Humpal and Fintrac Inc. developed the contact list, survey forms, and approach to be used in assessing US and Canadian buyer opinion of Moroccan products. This study will complete our efforts to evaluate success in opening markets and help to identify continuing challenges to broader entry to these North American markets.

Rachida Youmouri and Melissa Graham organized Moroccan participation for the Food Ingredient's Asia show in Shanghai, China. The show, scheduled for April, will have three Moroccan exhibitors.

In a major disappointment, the roll-out for Casablanca Beer in the USA was halted by a disagreement between the manufacturer and the US distributor. All marketing campaigns and promotions are on hold until this problem is resolved. It may take a full year, until 1999, to untangle the situation.

### **NEW TECHNOLOGY AND MANAGEMENT METHODS -Task 3**

We consider technology and management methods transferred only when their impacts can be identified at the farm, firm, or organization level. Introduced technology has to be adopted and spread for its effects to be recognized and estimated. Annex 2 recaps the status of technology transfer efforts made to date by year of introduction of the technology.

Our asparagus production manual, developed in collaboration with consulting horticulturist Dr. David Picha, was released this quarter after being reviewed by growers and SASMA. We hope that it will serve as the basis for further extension materials on this crop.

Dr. Marita Cantwell of UC Davis returned to Morocco in early March to follow up the 1997 postharvest workshop done in Agadir with APEFEL. She concentrated on field work in greenhouses and packing stations for tomatoes, strawberries, and melons. Each packing station visited received a report from Dr. Cantwell along with publications on techniques and management methods to improve operations. She found that fairly straightforward improvements in harvest, unloading, and sorting and grading operations could rapidly enhance the quality and value of the packed produce. Widespread deficiencies in personnel hygiene and pre-cooling need urgent industry attention.

Don Humpal continued work with SASMA and USDA/ARS on analysis of trials of SureDye, a photo-active food coloring which kills fruit flies, but which is harmless to other insects, vertebrates, and invertebrates. Materials are provided by Photodye, the US manufacturer of the food coloring (Red Dye No. 28), with technical supervision provided by the USDA/ARS Tropical and Subtropical Entomology Laboratory in Weslaco. The intent is to replace the more toxic Malathion, the standard fruitfly treatment with an

environmentally friendly treatment which will also leave no pesticide residues. Fall trials showed SureDye to be as effective as Malathion. This quarter trials were designed by SASMA, AMI/DAI, and USDA/ARS for tests of the active ingredient with the locally available protein bait used in current malathion treatments. The first beneficiaries of these trials may be fruit producers in Florida and California where malathion treatment of Medfly outbreaks is becoming increasingly unacceptable. Photodye is seeking fast-track registration of SureDye with the U.S. Environmental Protection Agency. Moroccan tomato and fruit producers may have found a new way to treat against the Medfly for their future shipping programs to the USA. Also, SASMA, is now linked to USDA research on Medfly control methods which aim to reduce costs and the use of pesticides which are scheduled to be retired from the producer's arsenal over the next 2 to 5 years.

### **INVESTMENTS - BRINGING PARTNERS TOGETHER -Tasks 1, 6, & 7**

Partnerships between the USA and Morocco generally begin through trade. This step is necessary to demonstrate to the partners that a joint investment project is feasible. Support activities provided by MAPP include subsector and pre-feasibility studies, the efforts to diversify trade and investment described in the preceding sections, sharing of costs for travel to bring potential investors to Morocco, and risk-sharing on new ventures through the promotion and investment fund. While we have met our target in terms of partnerships, these measures have not yet enabled us to stimulate the level of direct investment that we anticipated five years ago. The Moroccan agribusiness investment climate still scares US investors away.

#### **Summary of Joint Venture Progress**

A summary of the joint venture activities the project has worked on is presented in the three pages that follow. The chronology of the subsector studies is in Annex 1.

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## TABLE OF AMI/DAI PARTNERSHIP DEVELOPMENT ACTIVITIES

The following table recaps our partnership development activities to date and projected through 1998

- 1993** **Natural Pak Systems Inc (New Jersey) and Avon Val Maroc** investment partnership to introduce and distribute modified atmosphere fresh product packaging technology This partnership ceased to function in 1996
- 1994** **1 Lindsay International Inc (Texas et Nebraska) et Maghreb Tube** commercial and investment partnership for the distribution of center pivots, the creation of an agricultural department within Maghreb Tube, and partial fabrication of center pivots Turnover in 1994 of about \$500 000 Estimated sales for 1995 fell far short of target, primarily due to the debt burden held by dryland farmers The outlook for 1996 and 1997 was improved but Maghreb Tube was unable to cover credit risk Lower interest rates offer hope for 1998
- 2 Natural Pak Systems Inc (New Jersey) and Azura/Maraissa Maroc** commercial partnership to use the new packaging system on the vertically integrated shipments of tomatoes from Morocco to Europe In 1994/1995 a program of shipments was made with good technical results The experience led Natural Pak to redesign its system for use on entire shipping containers, but the 1996 research did not result in a commercially viable solution
- 3 Keithly Williams Seeds (California) et CASEM** commercial partnership for the distribution in Morocco of the Imperial Star artichoke variety Distribution agreement expanded in 1995 to include lettuce and melons In late 1995 CASEM began its distribution of artichoke plants The 1996 program included the importation of preconditioned artichoke seed to supply CASEM's artichoke plant supply program In 1996, CASEM added a second source of artichoke seed to meet demand and established an artichoke seedling nursery to help growers avoid having to deal with seed germination problems The program continued in 1997 and 1998
- 1995** Commercial partnership between **Lindemann** (Nevada) the **Cooperative Mabrouka** and **Ghyatt Marrakech** for the production packing and export of melons to the European Union with a test program to the USA The expected volume in 1995 of 1 000 MT was not achieved because of cold weather in Morocco that pushed much of the melon harvest beyond the targeted European marketing season The fall melon campaign was smaller than expected too Lindemann modified its program restructuring its buying service in Morocco in early 1996 Expected volume in 1996 was 1000 MT, even with a broader set of Moroccan suppliers An unsuccessful selection was made of a local representative leading to the collapse of the 1996 marketing campaign Lindemann withdrew from the marketplace
- 1995** Projected partnership between the U S company **Rock Gardens** (fresh herbs) and a Moroccan company later projected for 1996 Growth in certified organic production of herbs in Morocco improved chances for partnership development in 1997 but Rock Gardens was absorbed into the Cooseman s group putting Moroccan plans on hold

(Table continued on next page)

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## TABLE OF AMI/DAI PARTNERSHIP DEVELOPMENT ACTIVITIES (continued)

- 1995 Projected partnership between the U S company **I Deal** (condiments) and a Moroccan company **I Deal** went bankrupt It was replaced by **HVJ International, Inc** which visited and signed letters of intent on co packing of condiment products to have been formalized in 1996 Production contracts were signed with one Moroccan company in March 1996 A co packing investment originally developed for 1996 has been put on hold In 1996 and 1997 AMI staff worked with a Moroccan firm to buy and pack the Jalapeno peppers already grown By 1998 the deal was dead
- 1995 Projected partnership between the U S company **Speedling** (bedding plant nursery systems) and two Moroccan companies 1996 completion target has been moved to early 1997 with a new Moroccan company in the lead Management contract negotiations were completed in 1997, but the financing package remains incomplete
- 1996 Projected partnership between the U S company **Desert Glory** (greenhouse production of cherry tomatoes) and a Moroccan company This now appears unlikely Desert Glory decided to invest in Mexico rather than Morocco
- 1996 Projected distributorship between the U S company **Hauff Wind Machines** and a Moroccan company Both companies have elected not to pursue this distributorship
- 1996 We originally projected this joint venture for 1997 The U S firm **EMCO Cal** and a Moroccan seed and plant company have established a pilot strawberry plant nursery This partnership began with the signature of a letter of intent in the early Summer of 1996 In the fall the two firms sold 4 million US strawberry plants to Morocco and initiated trials at a nursery site A high elevation site was selected and the joint venture distributed plants in Morocco in the fall of 1997 The nursery is expanding in 1998
- 1996 Partnership originally projected for 1997 between Energy Essentials and a Moroccan company to produce biological herbal products and natural cosmetics Energy Essentials and local partners established a new Moroccan firm **Nectarome** in 1996 Dormant for much of 1996 **Nectarome** invested in a vertically integrated farming and processing operation With PIF assistance distillation of essential oils is scheduled for 1998
- 1996 Establishment of a joint venture called **Endo Ltd** by the U S firm **Naturam** and a Moroccan firm in fourth quarter of 1996 When **Naturam** was dissolved the Moroccan partner restructured the firm and has moved forward to begin VAM production with a new U S advisor
- 1997 A joint venture to be called **Sang Pur** between the U S firm **Clone Tech Inc** and a Moroccan firm Postponed indefinitely as **Clone Tech Inc** was restructured
- 1997 Expansion to direct production in Morocco of greenhouse tomatoes by **Village Farms Morocco** Village Farms has added melons and truffles to programs in Morocco Village Farms s decided that it must transfer its high tech greenhouses to Morocco to make the red tomato program work Project financing and a capital increase are on track in 1998 (Table continued on next page)

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**TABLE OF AMI/DAI PARTNERSHIP DEVELOPMENT ACTIVITIES**  
(continued)

- 1997** The projected partnership between the U S process authority **PhF Services Inc** and a Moroccan private laboratory moved forward throughout the first quarter of 1997. The formalization of the partnership was completed in May 1997. The **Cabinet Essadki** and PhF established **PhF Morocco** to provide services in food plant registration, plan audits, low acid and acidified food process establishment, and HACCP plan and program development and implementation. Advertising campaigns and show participation in 1997 and 1998, have led to growing sales.
- 1997** A marketing study begun in 1996 has led to a market development agreement being negotiated between **Sukon Marketing** and **SBM** for the development of Casablanca Beer for export to the USA. The marketing agreement was negotiated in the second quarter of 1997, and was signed in the third quarter of 1997. **SBM** and **Trident International** entered into an import and distribution agreement in the third quarter, and developed a US market launch for February 1998 which is now on hold. Small sales to Europe were done in early 1998.
- 1997** The Ornamental Plant Tour in February results in two Moroccan firms pursuing commercial and investment partnerships with U S firms. One firm has established two distribution agreements for U S garden tools with Corona and Snapper in 1997. Additional distribution agreements and a partnership are projected for 1998.
- 1997** Earth Green President visited Morocco in the third quarter. The trial results of the Humate product are promising. The Moroccan firm imported and distributed the humate product line. We still project a distribution agreement for mid-1998.

## **Prefeasibility Studies**

Fintrac Inc fielded the team to do the integrated potato production and processing pre-feasibility study. Richard Abbott led the team, which was made up of Roy Bosley, a potato processing specialist, Dr. Claude Falgon, Managing Director of ICEA Enterprises, who was responsible for European market analysis, and DAI consultant Jamila Safouane, who was completing an intensive study of the Moroccan marketplace for french fries, potato chips, extruded snack foods, and potato flake preparations. The study indicated that a frozen french-fry factory could be successful once raw material supply problems were ironed out. The need for an appropriate potato variety may be resolved by the Atlas variety's introduction to Morocco. However, it is necessary to find a way to integrate a producer or producers to the processor to make the project work.

Tom Lenaghan initiated the Grain Legume Mechanization Study with AgroConcept's President Hassan Benabderrazik and consultant Ali Chafai Elalaoui. A survey of grain legume producers was designed to help determine if, and how, mechanization might restore profitability to the production of chickpeas, lentils, and fava beans.

Tom also initiated work on the much-delayed apricot processing prefeasibility study this quarter. He worked with Fintrac to identify operators in drying and freezing operations from the USA who could participate.

Don Humpal continued work on the preliminary feasibility study of the processing of prickly pear cactus into nopalitos.

## **Promotion and Investment Fund Management**

In parallel to efforts to promote trade and investment partnerships, MAPP continued to offer some financial assistance through the Investment Promotion Fund (PIF) to investments judged too risky for full bank financing. Elsargane and its sister marketing firm Louzidia, rolled out its export package, placing the product in Morocco's duty free stores. Its Ounara facility will be receiving new equipment tested by the owner in Europe this quarter. Les Fermes du Levant continued work on its Agadir center and its isolation, testing, and development of mycorrhizal inoculants. Mr. El Showk has found broad interest in his project throughout North Africa and the Middle East. CASEM has carried out field evaluations of the performance of the plants from their high-altitude nursery. Growers have found these plants to be far superior to all imported plants, confirming the validity of the technical approach developed with EMCO Cal. By the end of the quarter, CASEM was able to restart nursery operations, and continue with their search for additional nursery sites at high elevation. The two essential oil PIF's were approved by the Steering Committee in February. Both Taromed and Nectarome are rapidly implementing their plans. The third PIF approved in February, for Haddouch Gourmet Imports, was suspended at the request of the owner, after the tragic death of his brother and principal partner.

During its February 3 meeting, the Steering Committee approved reprogramming of over \$360 000 in PIF funding for support to IAV Hassan II in its food technology program EACCE's proposed packaging laboratory, a DPVCTRF Integrated Pest Management program an olive oil quality control laboratory for the Agricultural Technicians Institute near Taounate, and an extension of the SASMA PIF on Red Tomato medfly infestation. These new activities were begun rapidly, with Tom Lenaghan coordinating with the DPVCTRF and taking over the ITA project. Don Humpal continued work with SASMA on its cooperative program to develop the data necessary to qualify other tomatoes than the Long Shelf Life variety Daniella for eventual export to the USA.

#### **ASSOCIATIONS - MOVING TOWARDS STRATEGIC OBJECTIVES-Task 4**

The first quarter saw a consolidation of activities with produce and food industry associations in Morocco. APEFEL and AMI/DAI worked together to organize the February Wholesale Marketing Tour, the February Postharvest Technology and Storage Tour, and, the field days undertaken by Dr. Marita Cantwell in Agadir, Larache and Tangier. Work with ADEPAM continued to support the organization of a national workshop on intensification of aromatic plant production. USAID agreed to let us support the publication of the Arabic translation of an ANAF guide to the safe use of ammonia as a refrigerant. Ammonia use will increase in industrial installations as the deadline for CFC reductions approaches in developing countries.

#### **REGULATORY AGENCIES - IMPROVING SUPPORT AND THE CLIMATE FOR AGRIBUSINESS INVESTMENT AND TRADE - Tasks 4 & 6**

The DAI Group works primarily with two regulatory agencies in Morocco and their counterpart organizations in the United States:

- The Etablissement Autonome de Contrôle et de Coordination des Exportations (EACCE- Export Control and Coordination Agency) responsible for regulating food exports from Morocco and managing export quotas. The EACCE's major U.S. counterpart organization is the Food and Drug Administration (FDA).
- The Direction de Protection des Végétaux, Contrôle Technique, et Répression des Fraudes (DPVCTRF - Department of Plant Protection and Quarantine, Plant Inspection, and Enforcement) responsible for phytosanitary certification of exports, plant quarantine, pesticide registration and regulation, plant and seed registration and regulatory enforcement. The DPVCTRF's major U.S. counterpart organization is the US Department of Agriculture's Animal and Plant Health Inspection Service (APHIS).

## **EACCE Enforcement Activity**

The EACCE committed itself to train all of its inspectors in FDA food safety regulations. It has enrolled 11 inspectors in the IAV Hassan II/University of Minnesota food processing short-courses. The new General Director of EACCE, Mr. Albert Sasson, has also directed his staff to push forward on discussions with the USFDA and USDA on memorandum of understanding projects. By their nature, these take years to accomplish, and the commitment to undertake them is a serious step forward.

## **EACCE Management Information Systems**

The EACCE rolled out its management information system. In January, USDA consultant Eric Gaillard arrived to work on Internet connectivity issues. USAID Director Mike Farbman and Economic Growth Division Chief Jerry Cashion visited to see the inauguration of the system. They were later able to see what public access to the regulatory and statistical databases would look like at the March SAM show in Casablanca. Mr. Gaillard will return for a final visit in May-June 1998.

## **EACCE Pesticide Residue Laboratory**

Dr. Mike Wehr carried out his final assessment of the EACCE Pesticide Laboratory. The laboratory was judged to be on-track with training, work load projections, and management systems advancing well. He concluded that the laboratory could do the job assigned it by EACCE management.

## **Red Tomato Medfly Dossier -**

Don Humpal worked closely with MAMVA, SASMA, EACCE, DPVCTRF, USDA/APHIS, USDA/ARS, and USDA/FAS staff throughout 1996 and 1997 on the trials of tomato tolerance to Medfly infestation. In early 1998, new trials for plum, cherry, and cluster tomatoes were designed and started with SASMA and industry assistance.

## **DPVCTRF**

In early February, Dr. Mike Wehr, USDA consultant, did a management evaluation of the DPVCTRF's Plant Quarantine Laboratory in Bouznika. His report focused on the need to get a management and technical team trained and in place to enable operations to start at this newly equipped and constructed facility. Mr. Santa Croce, the USDA plant quarantine specialist, arrived to carry out evaluation of port inspection procedures and to train DPVCTRF inspectors in APHIS procedures. Additional training was planned for DPVCTRF staff in the USA at USDA/APHIS plant quarantine facilities.

## TASK 6 INVESTMENT CLIMATE IMPROVEMENT

Implementing decrees for the plant variety protection law promulgated in May 1997 have lagged behind both Ministry and industry expectations. During the quarter, Don Humpal worked with industry representatives to examine the delay. There are still differences in government and industry positions over the fee schedule and the testing procedures for varietal registration. Complicating the issue is the large back-log of catalogue varieties which need to migrate to the new system. The DPVCTRF is responsible for the implementing decrees, but has not announced a schedule for their formal approval.

Allen Fleming worked with visiting ABSP staff in February on the next steps for varietal registration, plant breeder rights, and biosafety. These focus on assistance in the computerization of the varietal testing and registration process, training of staff, and continuing dialogue on the handling of genetically-engineered plants.

Don Humpal continued work with exporters, transporters, and Customs on the procedures for combined truck-air transport under customs bond from Morocco and transiting the European Union for shipment via air to North America. In principle agreement on the combined transport option was obtained with both RAM and Customs in mid-February. Morocco is a signatory to the international agreements which regulate this form of transport, but it has never developed the procedures to administer the agreement. Village Farms and the logistics company Mondial Top Express have undertaken to coordinate the effort to obtain the procedures and forms used by other countries and help Moroccan authorities adapt them to their context. Hopefully, procedures will be in place this summer to permit firm arrangements to be made with all parties involved in Morocco, Spain, and France. If this is achieved, then testing of the procedures could begin in the fall ahead of the tomato export season to North America. If it works, the reduction in transport costs gained by accessing the regular and chartered air cargo flights from Europe to North America, should permit Morocco to phase out its subsidies to air freight of agricultural products to North America over the next five years.

## HUMAN RESOURCE DEVELOPMENT - Task 5

Improving Moroccan capacity to compete on the world's marketplaces requires the acquisition of new skills, and their application to the challenges facing Moroccan horticultural exports. The project assists in training. Activities in the first quarter of 1998 included:

- Mr. Sedegui, PhD candidate in Plant Pathology (University of Delaware), visited in February to collect his last set of isolates of late blight races for testing and to collect weather data for his blight forecasting model. He returned to the USA to complete lab work and dissertation writing for a May 21 thesis defense.
- Mr. Mohamed Kamili, M.S. candidate in Agricultural Economics at the University of Minnesota maintained high grades, his thesis research was reviewed with his committee, and his major professor, Dr. Jerry Hammond, indicated that he would complete his program on time.

## MANAGEMENT, ADMINISTRATION, & COMMUNICATIONS- Task 8

### a Main Contract Activities

**Contract Revisions** DAI Chief of Party Don Humpal, MTDC and DAI/Bethesda staff began work on completing and closing down subcontracts. A close-out plan was developed and reviewed with the RCO and the EXO in February and March.

**Personnel Transitions** Rodrigo Brenes resigned from the post of Agribusiness Specialist effective March 2, 1998 for personal reasons. Mr. Tom Lenaghan, of DAI's home office staff, took over the position on a TDY basis in March.

### b Buy-ins

Allen Fleming, USAID CTO worked with the ABSP on follow-up programming in support of DPVCTRF.

### c Subcontracting Activities

- **The Postharvest Institute for Perishables** (University of Idaho) closing process was initiated.
- **The University of Minnesota's** Office of International Agricultural Programs provided on-going assistance to the management of training activities and private sector industry tours.
- **American Manufacturers Export Group (AMEG, an 8-a firm)** closing process was begun.
- **AgroConcept** provided consulting assistance for the Grain Legume Mechanization Study.
- **Purdue University's** Dr. Jim Chambers worked on preparation for the 1998 Frozen Fruit and Vegetables Workshop.
- **IMCC's** closing process was completed.
- **ICEA Enterprises** provide consulting assistance for the Integrated Potato Production and Processing Pre-Feasibility Study.
- **UC Davis' Extension Unit** provide consultant Marita Cantwell to do a series of postharvest field days in Agadir, Larache, and Tangier.
- **Fintrac, Inc** (a Gray-qualified firm) finalized translation of the EU Buyer's survey, fielded the Potato Prefeasibility team, began the North American Buyers' Survey, and began preparations for the Apricot Processing Prefeasibility study.

## 5 STATEMENT OF WORK

The 1995 external evaluation team's report showed that AMI/DAI's activities are effective and having the desired impact using both economic growth and socioeconomic indicators. While no major changes of direction were needed, the evaluation report recommended a reduction in the number of monitoring points to focus on major product flows and to eliminate measures which are influenced by factors far outside the control of the project. These changes have been made to our monitoring system. Because of the AID policy restrictions on investment promotion, the evaluation team recommended that the number of joint ventures included in the contract and project be reduced from 15 to 10. The report suggested that privatization be eliminated from the task list. Reallocation of training resources to Morocco-based activities with a higher demand was also recommended. We suggested that our contract be made consistent with the evaluation team's recommendations following review of our annual workplan and completion of our pipeline analysis in June 1996. The extension at no additional cost of our contract through June of 1998 was signed with the Regional Contracting Officer based in USAID/Dakar in April 1997. It included modification of the scope of work of the Market Promotion Specialist based at DAI/Bethesda headquarters.

### B ADMINISTRATIVE INFORMATION

The DAI contract is a completion-type contract.

|               |                                    |                     |
|---------------|------------------------------------|---------------------|
| Contract Data | Total estimated cost is            | <u>\$13,437,702</u> |
| 1             | Expenditures (January-March 1998)  | <u>\$547,497</u>    |
| 2             | Cumulative Expenditures to 3/31/98 | <u>\$11,653,217</u> |
| 3             | Remaining Unexpended Balance       | <u>\$1,784,485</u>  |

The estimated expenditures represent 87 percent expenditure of the budget over 96 percent of the extended 71-month life of contract.

## **4 MAJOR ACTIVITIES FOR THE OCTOBER THROUGH DECEMBER 1997 PERIOD**

### **4 a Main Contract Activities**

**Closing down of subcontracts by the end of the quarter**

**Procurement for the new activities approved in February by the Steering Committee**

**Lessons Learned Seminar, June 1998**

**Implementing contract close-down plans**

#### **Task 1 Increasing Investment**

##### **Foreign Investment**

- Village Farms assistance - air freight, intermodal air shipment, high tech greenhouse financing

##### **Subsector and Prefeasibility Studies**

- Completion of the nopalitos processing pre-feasibility study
- Completion of the grain legume mechanization study
- Completion of the apricot processing pre-feasibility study
- Completion of the integrated potato processing pre-feasibility study

#### **Task 2 Diversifying Trade and Investment**

- Preparation for winter 1998/99 North American marketing campaign for red tomatoes
- Completion of the North American buyer follow-up survey
- Completion of the Food Ingredients Asia show
- Preparation for the 1998 Wholesale Market Tour with U Minnesota

#### **Task 3 Technology Transfer**

- Spice Cleaning Workshop
- Execution of the Frozen Fruit and Vegetable Workshop

#### **Task 4 Assistance to Agribusiness Supporting Organizations**

- Cooperation on USDA/APHIS workplan with MAMVA
- Coordination with MAMVA/DPV on the Cellule de Partenariat
- DPVCTRF follow-up with USDA PASA consultants
- Assistance to EACCE Packaging Laboratory
- Assistance to DPVCTRF IPM Program
- Assistance to ITA Taounate Olive Oil Quality Control Laboratory
- Assistance to SASMA on Red Tomato Trials

## **Task 5 Training**

- Mr Sedegui completes all PhD Plant Pathology requirements
- Mr Kamili completes all M S Ag Econ requirements

## **Task 6 Investment Climate Improvement**

- Admissibility of Moroccan Red Tomatoes to the USA
- EACCE investigation and resolution of problems showing up as FDA detentions of Moroccan processed products

## **Task 7 Promotion and Investment Fund Operations**

- Elsargane PIF completion
- ENDO PIF completion
- High altitude strawberry nursery PIF implementation CASEM-EMCO-Cal
- Completion of PIF from ADEPAM
- Completion of TAROMED PIF
- Completion of NECTAROME PIF

## **Task 8 Management and Administration**

- Document transfer to national library
- Transfer of frozen food short-course material to IAV Hassan II (Visual aids)
- Project close-out

### **4 b Buy-ins**

Follow-up work with USAID/Rabat and ABSP for computer assistance to DPVCTRF personnel in management of plant variety registration procedures and databases

### **4 c Subcontracting Activities**

**Subcontract modification to follow the new DAI prime contract for all subcontractors**

- **The Postharvest Institute for Perishables**, close out
- **The University of Minnesota's Office of International Agricultural Programs** completion of training programs and contract services
- **American Manufacturers Export Group (AMEG, an 8-a firm)** close-out
- **AgroConcept** completion of the grain legume mechanization survey
- **Purdue University** completion of the frozen food safety and technology work-shop

- **IMCC (Grey Amendment firm)** - Close out
- **ICEA Enterprises-** assistance to lessons learned conference
- **Fintrac (Grey Amendment firm)** - completion of North American Buyer Survey, Apricot Study

## Annex 1

### Table Summarizing Sub-Sector and Policy Studies

| <u>Date Field</u><br><u>Work Completed</u> | <u>Study Title</u>  |
|--|---|
| Subsector Studies                          |   |
| January 1993                               | The Olive and Olive Oil Subsector   |
| April 1993                                 | The Early Fresh Vegetable Subsector   |
| May 1993                                   | The Cutflower Subsector   |
| September 1993                             | The Wine and Table Grape Subsector  |
| April 1994                                 | The Essential Oils, Spice, and Medicinal Plant Subsector  |
| September 1994                             | The Fresh Fruit Subsector   |
| November 1994                              | The Processed Fruit and Vegetable Subsector Study   |
| February 1996                              | Update of the Wine component of the Subsector Study   |
| April 1996                                 | The Grain Legume Subsector Study  |
| February 1997                              | Update of the Olive Oil component of the Subsector Study  |
| Policy and Regulatory Studies              |   |
| September 1993                             | International Transport and the Promotion of Moroccan Horticultural Exports   |
| May 1995                                   | The Impact of the Marrakech Accords (GATT) and the Expansion of the European Union on Moroccan Agricultural Exports (Volumes I and II completed ) |
| November 1995                              | The Impact of the Marrakech GATT Accords and the Expansion of the European Union on Moroccan Agricultural Exports (Volumes III and IV completed ) |
| February 1996                              | Update and revision of Volumes III and IV of the GATT impact study to reflect the bilateral Morocco-EU Accord                                     |
| June 1996                                  | Update of the International Road Transport portion of the Transport Study   |
| April 1997                                 | Guide de l'Arbitrage  |
| May 1997                                   | Survey of U S Investors   |

**Annex 2**  
**Summary of Technology Introductions and Transfers**

**TABLE SUMMARIZING TECHNOLOGY INTRODUCTIONS AND TRANSFERS**

| <b>Year Introduced</b> | <b>Technology</b>   |
|------------------------|---|
| 1992                   | Use of extruded vegetable protein in the manufacture of processed foods (flours and sausages)   |
| 1993                   | Production of "fruit leather" from fruit pulp   |
| 1993                   | Modified atmosphere packaging to reduce transport costs and improve the quality and shelf life of tomatoes *  |
| 1993                   | Introduction of Imperial Star Artichoke with earliness and +20% yield improvement*  |
| 1993                   | Introduction of the HACCP system of food safety management to permit Moroccan processors to meet U S requirements for entry of their low acid and acidified foods and to accelerate movement towards ISO certification* |
| 1993                   | Introduction of the sanitary audit checklist for freezing operations*   |
| 1994                   | Transport of roses at low temperatures by truck to avoid the high cost of air transport   |
| 1994                   | Introduction of the production of quick frozen whole green peppers for stuffing*  |
| 1994                   | Installation of a village level prototype for the extraction of argan oil   |
| 1994                   | Introduction of pre-cooling, forced air techniques to prepare fresh products for long distance transport to new markets   |
| 1994                   | Introduction of modified atmosphere and controlled atmosphere containers*   |
| 1994                   | Introduction of the Sweet Charley strawberry variety to improve the quality of Moroccan strawberries offered to foreign buyers *  |
| 1994                   | Assistance to the introduction of improved melon harvest, packing, and export management*   |
| 1995                   | Introduction of raspberry varieties adapted to European demand for fresh and frozen product   |
| 1995                   | Licensing of low-chill peach variety and introduction to Morocco *  |
| 1995                   | Introduction of new raspberry production techniques   |
| 1995                   | Transfer of jalapeno sauce product formula*   |
| 1995                   | Introduction of new frost protection equipment  |
| 1995                   | Licensing of low chill apple variety and introduction to Morocco*   |
| 1995                   | Licensing of second low-chill peach variety and introduction to Morocco*  |
| 1996                   | New asparagus variety introduction (2)  |
| 1996                   | Orchard crop plastics introduced  |
| 1996                   | Vesicular Arbuscular Mycorrhizae (VAM) introduction begun   |
| 1996                   | Microtuber trials of a Russet Burbank potato variety  |

- 1996 Low and medium-chill breeding material introduction begun
- 1996 FDA Certification of Industry and Government Food Safety Supervisors (39)
- 1996 Paulonia tree introduction \*
- 1996 Licensing of a third low-chill peach variety and introduction to Morocco\*
- 1996 Introduction of organic fruit coatings for fresh products
- 1996 Introduction of humate soil amendment\*
- 1996 Licensing and introduction of a fourth low-chill peach variety and introduction to Morocco\*
- 1996 Introduction of remote soil moisture sensors for precision irrigation systems
- 1996 Introduction of potato blight forecasting software
- 1996 Introduction of pesticide management approaches to handling Ridomil resistance of late blight in potatoes
- 1996 Licensing negotiations for the introduction of five new raspberry varieties
  
- 1997 Licensing negotiations for low-chill apricot and nectarine cultivars
- 1997 Integrated spice cleaning line machinery\*
- 1997 Machinery to manufacturer drip line with incorporated emitters

In addition, 15 product marketing strategies have been developed with producers, packers, and processors

Technologies marked with an asterisk have moved from direct project introduction to commercial importation and distribution