MILLENNIUM CHALLENGE ACCOUNT

Kingdom of Morocco

Fruit Tree Productivity Project

TOR TC-1A

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ANNEX A. Map of Morocco showing the regions targeted by the

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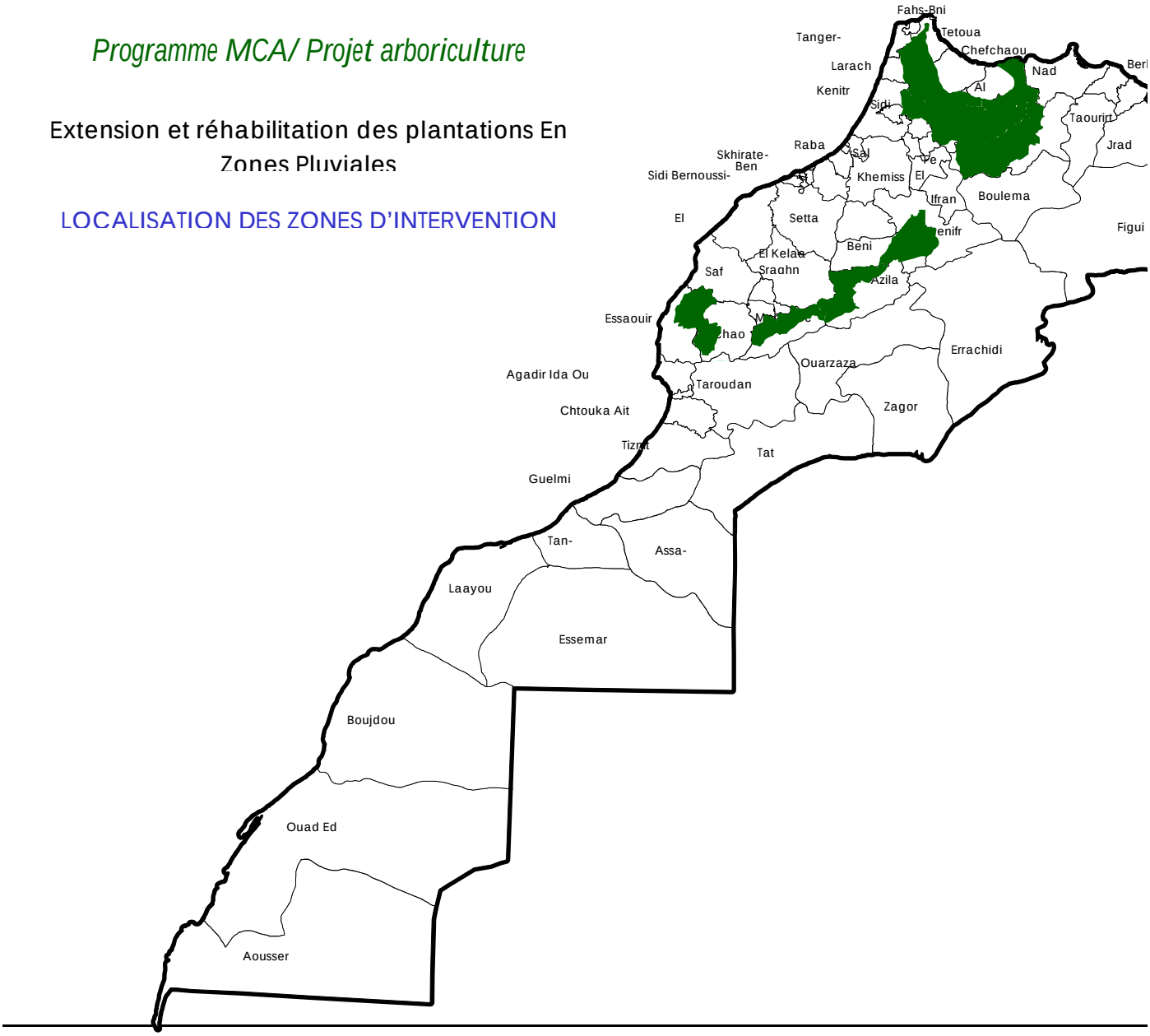

ANNEX B.

List of Communes targeted by MOA for Project interventions in Rainfed areas

by agro-ecological zones, sub-zones, and provinces

(Répartition des communes concernées par zone homogène, sous-zone et province)

Province	Communes rurales
Al Hoceima	Imrebten, Tifarouine, Rouadi, Beni Hadifa, Beni Abdellah, B.G. Mestassa, B.G Maxoline, Beni Ammart, Sidi Bouzineb, Sidi Bouchibet, Beni Bchir
Jerrada	Genfouda, Guefait, Ras Asfour, Sidi Boubker, Tiouli
Taourirt	Tancherfi, Ain Lahjer, Sidi Ali Belkacem, Sidi Lahcen, Mestegmer, Ahl Oued Za, Melg Elouedane, Gtitir
Berkane	Sid Bouhria, Rlislane, Tafoghalt, Aghbal, Fezouane, Bourghiba, Zegzel
Oujda Angad	Mastfarki, Ain Sfa
Taza	Ajdir, Bourded, S.A.Bourekba, Gzenaya janoubia, Tizi Ousli, Tainaste, Kaf el ghar, Mezguitem, Bouhlou, Beni Frassen, Ghiata, Gharbia, Had Oed Zbair, Rbae el Fouki, Gueldamane, Meknassa Gharbia, Ouled Chrif, Beni lent, Meknassa Charquia, Bab Marzouka, Brarha, Beni Ftah, M'Sila, Traiba, Taifa, Jbarna, Matmata, Ait Serghrouchenne, Maghraoua, Smiâa, Tazarine, Zerarda
Taounate	Tamedite, Beni Ounjel, Fennassa, Khalafa, Zrizar, Bouhouda, Aïn Mediouna, Mezraoua, Rghioua, Beni Oulid, S.Y.B Zeroual, Kissane, Tafrante, Galaz, Ourtzagh, Timezgana, Oudka, Ratba, El Bibane, M'Kansa, Jbabra, Oulja, My abdelkrim, Béni Snous, My Bouchta, Oued Jemaâ, Ouled Daoud, Aïn Maâtouf, Aïn Gdah, Ras El Oued.
Larache	Souk Tolba, Souaken, Tatoft, Boujediane, Elkola, Reissana Nord, Reissana Sud, Ayacha, Beni arrous, Tazrout, Beni Gorfet, Zaaroura
Tetouan	Saddina, Beni Idder, Sahtrienne, Beni Lait, Zinat, Kharroub, Bghaghza, Z sidi kacem, Souk lakdim, Beni harchen, Jbel lahbib, Ain lAhcen, Allyéne
Chefchaouen	Ain Beida, Asjen, Brikcha, Zoumi
Sidi Kacem	Zghira, Teroual, Ouennana, S. Bousber, S. Ahmed Cherif, S. Redouane, Beni Kolla, Masmouda, M'Zefroune
Fes My Yakoub	Sept Loudaya, Ain Kansara, Sbaa Rouadi, Od Mimoun, Loudyine, Ain Bouali

Sefrou	Aghbalou Aqorar, Ras Tabouda, Azzaba, Adrej, Ain Timguenai, Dar El Hamra , Ighzrane, Kandar Sidi Khiar, Laanoussar, Mtarnagha, Oulad Mkoudou, Tazouta, Tafajight, Sidi Youssef Ben Ahmed, Ain Cheggag, Ait Sbaa, Bit tam tam
Khenifra	Aguelmous, Sidi Hcine, H. B, S. A. R My Bouaza, El hammam, Oum.Rabia, Aguemam, Lahri, El borj, M-H-Z, Sidi Amer, Sidi Lamine, Ait Ishaq, Tighssaline, Ouamana, Kerouchen, El Kbab, Ait saadali, Sidi Yahya Ousaaad
Beni Mellal	Taghzirt, Foum El Anceur, Ait Oum El bakht, Dir El Ksiba, El Ksiba, Foum Oudi
Azilal	Tifni, Sidi Boulekhlef, Sidi Yaakoub, Ouaoula, Ait Ouarda, Ouaouizerth, Bine Elouidane, Ait Mazigh, Ait Taguella, Taounza, My Aissa Ben Driss, Tisqui, Tanant, Foum Jemâa
Al Haouz	Abadou, Ait Adel, Ait Hkim, Tamaguert, Tazart, Tidili, Touama, Zerkten, Aghbar, Amaghras, Amizmiz, Ighil, Ijoukak, Imgdal, O. Mtaa, Ouirgan, S .Boudhaj, T .Nyacoub, Tizguine, Tighdouine,
Essaouira	Had Dra, M'khalif, Mzilate, Meskala, Mouarid, Sidi Ali El Korati, Sidi Laaroussi, Sidi jazouli, Od Mrabet
Chichaoua	Timzgadiouine, Sidi Ghanem, Sidi Abdelmoumen, Irohalen, Timlilt

ANNEX C. Provisional program (in hectares) of MOA for Life-of-Project for the Rainfed Extension perimeters by tree species, province and year

Olivier Extension

DPA	A1	A2	A3	A4	A5	Total
LARACHE	600	1,200	1,600	1,000	600	5,000
TETOUAN	600	1,200	1,600	1,000	600	5,000
AL HOCEIMA	0	500	500	500		1,500
CHEFCHAOUEN	600	3,000	5,000	3,000	1,400	13,000
MARRAKECH	0	600	600	500		1,700
TAOUNATE	1,200	4,000	6,000	4,500	2,000	17,700
TAZA	1,200	4,000	6,000	4,500	2,000	17,700
SEFROU	600	2,000	2,000	1,000		5,600
KHENIFRA	0	1,200	2,500	2,500	500	6,700
AZILAL	0	800	1,200	1,000		3,000
OUJDA	0	500	500	500		1,500
MOULOUYA	0	500	500	500		1,500
Sidi Kacem (Ouezzane)	600	2,000	2,500	1,500	1,000	7,600
Beni Mellal	0	500	500	500		1,500
Chichaoua	0	500	500	500		1,500
Essaouira	0	500	500	500		1,500
Zouagha Moulay Yakoub	600	2,000	3,000	1,500	900	8,000
TOTAL	**6,000**	**25,000**	**35,000**	**25,000**	**9,000**	**100,000**

Amandier Extension

DPA	A1	A2	A3	A4	A5	Total
AL HOCEIMA	0	1,000	1,200	1,000	400	3,600
MARRAKECH	0	200	200	200	200	800
TAOUNATE	0	600	900	900	200	2,600
TAZA	0	1,000	1,400	800	600	3,800
AZILAL	0	400	300	300	200	1,200
OUJDA	0	400	500	400	200	1,500
MOULOUYA	0	400	500	400	200	1,500
TOTAL	**0**	**4,000**	**5,000**	**4,000**	**2,000**	**15,000**

Figuier Extension

DPA	A1	A2	A3	A4	A5	Total
AL HOCEIMA	0	200	300	300	200	1,000
CHEFCHAOUEN	0	200	300	300	200	1,000
TAOUNATE	0	200	300	300	200	1,000
TAZA	0	200	300	300	200	1,000
Sidi Kacem (Ouezzane)	0	200	300	300	200	1,000
TOTAL	**0**	**1,000**	**1,500**	**1,500**	**1,000**	**5,000**

	A1	A2	A3	A4	A5	Total
Olivier	6,000	25,000	35,000	25,000	9,000	**100,000**
Amandier	0	4,000	5,000	4,000	2,000	**15,000**
Figuier	0	1,000	1,500	1,500	1,000	**5,000**
Total	**6,000**	**30,000**	**41,500**	**30,500**	**12,000**	**120,000**

ANNEX D. Provisional program (in hectares) of MOA for Life-of-Project for the Rainfed Rehabilitation perimeters by tree species, province and year

Olivier Réhabilitation

DPA	A1	A2	A3	A4	A5	Total
LARACHE	700	500	500	200	100	2,000
TETOUAN	500	400	400	400	300	2,000
AL HOCEIMA	0	300	300	200	200	1,000
CHEFCHAOUEN	1,100	1,500	1,500	1,300	600	6,000
MARRAKECH	0	300	300	200	200	1,000
TAOUNATE	1,600	2,000	2,000	1,600	800	8,000
TAZA	1,600	2,000	2,000	1,600	800	8,000
SEFROU	400	800	800	600	400	3,000
KHENIFRA	0	600	600	500	300	2,000
AZILAL	0	600	600	500	300	2,000
OUJDA	0	300	300	200	200	1,000
MOULOUYA	0	300	300	200	200	1,000
Sidi Kacem (Ouezzane)	800	700	700	500	300	3,000
Beni Mellal	0	300	300	200	200	1,000
Chichaoua		200	100	100	100	500
Essaouira	0	200	100	100	100	500
Zouagha Moulay Yakoub	1,000	600	600	500	300	3,000
Total	**7,700**	**11,600**	**11,400**	**8,900**	**5,400**	**45,000**

Amandier Réhabilitation

	A1	A2	A3	A4	A5	Total
AL HOCEIMA	0	400	400	400	300	1,500
CHEFCHAOUEN	0	100	200	100	100	500
TAOUNATE	0	300	300	300	100	1,000
TAZA	0	400	500	400	200	1,500
SEFROU	0	200	100	100	100	500

KHENIFRA	0	200	100	100	100	500
AZILAL	0	200	100	100	100	500
Total	**0**	**1,800**	**1,700**	**1,500**	**1,000**	**6,000**

Figuier Réhabilitation

	A1	A2	A3	A4	A5	Total
AL HOCEIMA	0	300	300	200	200	1,000
CHEFCHAOUEN	0	300	300	300	100	1,000
TAOUNATE	0	300	300	300	100	1,000
TAZA	0	100	200	200	0	500
Sidi Kacem (Ouezzane)	0	100	200	100	100	500
Total	**0**	**1,100**	**1,300**	**1,100**	**500**	**4,000**

TOTAL PROJECT	**7,700**	**14,500**	**14,400**	**11,500**	**6,900**	**55,000**

ANNEX E. List of candidate perimeters selected for Expansion by MOA in targeted Rainfed areas for initial start-up phase in 2008

Liste provisoire des périmètres proposés dans le cadre du programme pilote 2008(version du 11 octobre 2007)

					%Superficie / Classe de pente			Superficie (Ha) / Classe de pente			
Province	**Commune rurale**	**Périmètres**	**Nbre Exploitations**	**Superficie (Ha)**	**5 à 15**	**15 à 30**	**>30**	**5 à 15**	**15 à 30**	**>30**	**Total**
Taounate	Bouadel	Faytoura	244	220.0	20%	60%	20%	44.0	132.0	44.0	220.0
Taounate	Bni snouss	Oulad Sfa	85	320.0	100%	0%	0%	320.0	0.0	0.0	320.0
Taounate	Ouled Jemaa	Abdejlilate	63	360.0	10%	70%	20%	36.0	252.0	72.0	360.0
Taounate	Oulad Daoud	Bhahda	146	290.0	23%	70%	7%	66.7	203.0	20.3	290.0
Taounate	Mezraoua	Aïn Biada	120	240.0	10%	90%	0%	24.0	216.0	0.0	240.0
Total Taounate		**5**	**658**	**1,430.0**	**34%**	**56%**	**10%**	**490.7**	**803.0**	**136.3**	**1,430.0**
Taza	Tahala	Mssassa	45	300.0	50%	50%	0%	150.0	150.0	0.0	300.0
Taza	Had Msila	Ouled Guenoun	90	200.0	0%	100%	0%	0.0	200.0	0.0	200.0
Taza	Ouled Cherif	Béni Ouazaâ	160	500.0	6%	30%	64%	30.0	150.0	320.0	500.0
Taza	Jbarna	Kliaa-Khandak Sanhaja	80	300.0	10%	50%	40%	30.0	150.0	120.0	300.0
Total Taza		**4**	**375**	**1,300.0**	**16%**	**50%**	**34%**	**210.0**	**650.0**	**440.0**	**1,300.0**
Chefchaouen	Brikcha	Bab Damekou Ahl Chan	70	100.0	20%	40%	40%	20.0	40.0	40.0	100.0
Chefchaouen	Brikcha	Sdaq – Bni Mhamed	129	250.0	15%	35%	50%	37.5	87.5	125.0	250.0
Chefchaouen	Brikcha	Bni Mhamed	93	220.0	10%	40%	50%	22.0	88.0	110.0	220.0
Total Chefchaouen		**2**	**222**	**470.0**	**13%**	**37%**	**50%**	**59.5**	**175.5**	**235.0**	**470.0**
Sefrou	Ighazrane	Tahayante	44	120.0	67%	33%	0%	80.4	39.6	0.0	120.0
Sefrou	Ighazrane	Ifrah	20	120.0	100%	0%	0%	120.0	0.0	0.0	120.0
Sefrou	Ras Tabouda	Ait Jaber	34	130.0	36%	60%	4%	46.8	78.0	5.2	130.0
Sefrou	Ras Tabouda	Ait Amar Ouchaou	29	110.0	17%	75%	8%	18.7	82.5	8.8	110.0
Sefrou	Aghbalou Akorar	Sabbab Imaoun	100	130.0	76%	24%	0%	98.8	31.2	0.0	130.0
Total Sefrou		**5**	**227**	**610.0**	**60%**	**38%**	**2%**	**364.7**	**231.3**	**14.0**	**610.0**
Azilal	Tifni	Tissilte N'tizgui	174	400.0	80%	16%	4%	320.0	64.0	16.0	400.0
Total Azilal		**1**	**174**	**400.0**	**80%**	**16%**	**4%**	**320.0**	**64.0**	**16.0**	**400.0**
Sidi Kacem	M'Zefroune	Dchar Alia	215	400.0	26%	36%	38%	104.0	144.0	152.0	400.0
Sidi Kacem	Bni Kolla	Hammat	122	200.0	17%	83%	0%	34.0	166.0	0.0	200.0
Total Sidi Kacem		**2**	**337**	**600.0**	**23%**	**52%**	**25%**	**138.0**	**310.0**	**152.0**	**600.0**
Fes	Oulad mimoun	Chaabt Laaraara	130	400.0	50%	30%	20%	200.0	120.0	80.0	400.0
Total Fes		**1**	**130**	**400.0**	**50%**	**30%**	**20%**	**200.0**	**120.0**	**80.0**	**400.0**
Larache	Khandak Hamra	Khanda Hamra	113	300.0	0%	100%	0%	0.0	300.0	0.0	300.0
Total Larache		**1**	**113**	**300.0**	**0%**	**100%**	**0%**	**0.0**	**300.0**	**0.0**	**300.0**
Tetouan	Béni Lait	Lahyot 1	106	160.0	0%	37%	63%	0.0	59.2	100.8	160.0
Tetouan	Béni Lait	Lahyot 2	92	140.0	0%	28%	72%	0.0	39.2	100.8	140.0
Larache	Sahtryéne	M'Ghazliyene	79	160.0	55%	45%	0%	88.0	72.0	0.0	160.0
Larache	Béni Arous	Ain Hdid	88	180.0	0%	100%	0%	0.0	180.0	0.0	180.0
Total Tetouan		**4**	**365**	**640.0**	**14%**	**27%**	**32%**	**88.0**	**170.4**	**201.6**	**460.0**
Total		**25**	**2,671**	**6,250.0**	**30%**	**49%**	**21%**	**1,890.9**	**3,044.2**	**1,314.9**	**6,250.0**

ANNEX F.

Perimeter selection criteria and guidance for Rainfed Expansion areas

(including draft model Agreements between farmer groups and MOA and between individual farmers and their farmer group)

The Rainfed Expansion perimeters selected for the Fruit Tree Productivity Project will meet ALL of the criteria listed in draft form below. The final list of criteria will be provided by MOA to the Consultant prior to commencement of work as will the criteria specific to the Rainfed Rehabilitation perimeters that will be formulated by MOA based on this model. Exceptions to the final set of criteria are possible on a case-by-case basis, if formally requested, sufficiently justified and approved by MOA-MCA and MCC.

I. General Geographic Zoning

1. Rainfed (bour) hilly agricultural zones in rural communes located within the 19 provinces in northern and central Morocco targeted by the Project and that are well adapted and suited for non-irrigated olive, almond and fig production

2. Current, predominant cropping system on erosion-prone hillside farms based primarily on annual cereal production often with up- and down-slope plowing

3. Close proximity to decent all-season roads (easily passable during the rainy season for transportation of contractor equipment and staff, agricultural inputs and outputs, other farmers and project visitors)

4. Reasonable distance/access to appropriate, modern crop processing/packing facilities (i.e. markets, buyers)

5. Availability of suitable staging and holding areas for equipment and supplies

6. Reasonable proximity to sufficient, capable and responsive DPA/CT and ORMVA/CMV staff

7. All of the zoning criteria specified in the SEA (i.e. no impact on biodiversity, no impact on protected areas, no impact on vulnerable groups of people) – this includes the initial set of perimeters targeted for 2008 even though the SEA will not be completed until November 2008

II. Perimeter Site-Specific Properties

1. Minimum average annual rainfall over the past 20 years of 350 mm for olives and 300 mm for almonds and figs

2. Landscape suitable for installation of recommended types of erosion control structures (refer to design standards)

3. Slopes less than 50% (exceptions for steeper slopes possible if formally requested, sufficiently justified and approved by MOA-MCA and MCC)

4. Soils suitable to support orchards as determined by MOA, preferably based on soil suitability mapping (minimum soil depth in accordance with design standards and without widespread subsoil conditions that limit root penetration)

5. Current land-use predominantly cereal crops

6. Private land ownership/tenure (*"melk"* or "*assimilé*")

7. Predominance of small and medium-size farms (75% of the farms less than 5 ha)

8. Availability of sufficient local manual labor for expected earthworks and tree planting

9. Ready accessibility to local water supplies for supplemental watering during the 2-year tree-maintenance period

10. Maximum cost per hectare for the earthworks: 15,000 DH (exact ceiling to be determined by MOA-MCA and MCC prior to start of Consultant work)

11. All of the additional site-specific criteria as determined by the SEA and EMP (including commitment by each participating farmer group to implement and/or maintain any mitigation measures required by the project).

III. Beneficiary Characteristics and Commitments

Through an open, transparent, voluntary and participatory process, potential farmer-beneficiaries in each candidate perimeter express, through their associations, genuine willingness and commitment to meet all the responsibilities and obligations of participation in the MCA project as codified in the official Agreements (see attached drafts), which every participating farmer must sign. This includes agreement by participating farmers to provide without compensation any small areas of land needed for terracing and temporary laydown areas, as well as any necessary environmental compliance measures. These Agreements are between the individual participating farmer and his/her Producer Organization (farmer *groupement*, association or cooperative) as well as between the participating farmer group and MOA, and are respectively called *Contrat d'Engagement* and *Contrat Programme*.

Contrat Programme

Between MOA (MCA Project) and the Producer Organization

(MOA draft of May 2007)

Article 1 : Objectifs du contrat.

Le contrat s'inscrit dans le cadre du projet financé par le Millenium Challenge Account (MCA) et dont les objectifs sont :

- Le développement intégré de la filière arboricole surtout oléicole.
- Amélioration du revenu des agriculteurs et promotion de création d'emploi.
- Préservation de l'environnement et des ressources naturelles.

Le présent contrat s'inscrit dans le cadre de l'approche participative adoptée par le projet pour la réalisation des actions programmées, et il a pour objet de définir les engagements respectifs entre le Projet et l'organisation pour la mise en œuvre des actions arrêtées conjointement entre les deux parties.

Article 2 : Engagements du Projet.

Le Projet s'engage à :

- Réaliser les travaux relatifs à la création (extension) de périmètres oléicoles (aussi amandiers et figuiers en certains cas) sur les terrains en pentes relevant des membres de l'organisation et ce selon les normes techniques consignées dans le cahier des charges adopté par le projet.
- Prendre en charge les frais d'entretien des jeunes nouvelles plantations durant les deux premières années d'installation.
- Assurer l'encadrement, l'assistance technique et la formation au profit des membres de l'organisation sur les différents aspects de production, de valorisation et de commercialisation.

Article 3 : Engagements de l'organisation.

L'organisation s'engage à :

- La participation effective des bénéficiaires à la mise en œuvre et au suivi des travaux d'aménagement des périmètres et d'installation des plantations.
- L'entretien des nouvelles plantations ainsi que des banquettes et tout autre ouvrage réalisé à partir de la troisième année d'installation et veiller à la pérennisation des actions après le Projet.
- La sensibilisation des membres à participer activement aux sessions de formation organisées par le Projet.

Article 4 : Validité et date d'effet.

Le contrat est valable et exécutable dés sa signature par les deux parties contractantes.

Contrat d'Engagement

Between the Producer Organization and Each of its Members

(MOA draft of May 2007)

Article 1 : Objet du contrat.

Le présent contrat s'inscrit dans le cadre de l'approche participative adoptée par le projet pour la réalisation des actions programmées. Il a pour objet de définir les engagements respectifs entre l'organisation ……. et Mr ……, porteur de CIN n° ……. et résidant à l'adresse …….

Article 2 : Engagement de l'organisation.

L'organisation s'engage à :

- La représentation de Mr …… auprès des institutions chargées de la mise en œuvre et du suivi du projet ;
- La participation à l'encadrement des opérations prévues par le projet ;
- L'intégration de Mr ……., en fonction des besoins et des possibilités offertes, dans les sessions de formation qui seront organisées dans ce cadre ;
- La concertation pour l'approvisionnement en facteurs de production en faveur du bénéficiaire.

Article 3 : Engagement du bénéficiaire.

Mr …… s'engage à :

- Respecter les engagements pris par l'organisation dans le cadre de la mise en œuvre du projet ;
- Participer à la mise en œuvre des opérations au niveau de son exploitation et prendre les mesures nécessaires pour assurer leur réussite et leur durabilité ;
- Adhérer à toutes les opérations collectives qui concernent l'amélioration de la filière oléicole (taille, protection phytosanitaire, irrigation, fertilisation, valorisation).
- Entretenir des banquettes et tout autre ouvrage anti-érosive réalisé.
- Participer activement aux sessions de formation organisées par le Projet.

Article 4 : Date d'effet.

Le présent contrat prend effet dés la date de sa signature par les deux parties contractantes.

ANNEX G.

Characterization of Rainfed intervention zones

(ZONES ET ESPACES D'INTERVENTION DU PROJET ARBORICULTURE FRUITIERE)

Le projet de développement de l'arboriculture fruitière soumis financé par MCA concerne 4 filières à savoir : l'olivier, l'amandier et le figuier au niveau des zones de montagnes et le palmier dattier en zones oasiennes. Pour l'olivier, l'amandier et le figuier, les interventions concernent aussi bien les zones pluviales que les zones irriguées.

Les zones pluviales ciblées sont principalement localisées dans la région pré-rifaine ainsi que les versants Nord et Ouest du Moyen et Haut Atlas. Ces espaces se caractérisent globalement par une pluviométrie supérieure à 350 mm et des sols adaptés aux espèces ciblées.

S'agissant des zones irriguées, l'ensemble des provinces montagneuses sont concernées mais à des degrés variés et ce, en fonction des ressources hydriques disponibles. Les superficies irriguées sont plus importantes au niveau des provinces situées dans le Moyen et le Haut Atlas.

Les zones oasiennes concernées sont caractérisées par une pluviométrie moyenne inférieure à 200 mm. L'agriculture est essentiellement localisée dans les vallées alluviales du Ziz et Draa. Le palmier dattier, constituant l'ossature de l'économie agricole, est associé à d'autres cultures pérennes (arboriculture) et/ou annuelles (céréales, luzerne, maraîchage, etc..) selon les disponibilités hydriques qui sont mobilisées souvent par des systèmes traditionnels de « khettaras » et d'épandages des eaux de crues.

Pour la région pluviale ciblée du Projet, la typologie et la délimitation de ces espaces en cinq zones homogènes sont décrites ci-dessous selon des critères liés aux caractéristiques agro–écologiques et exigences des espèces arboricoles ciblées. .

Zones D'Arboriculture Pluviale

La zone d'arboriculture pluviale s'étend sur les provinces situées dans la région pré-rifaine et le versant Nord occidental du Moyen et Haut Atlas. Elle couvre une Superficie Agricole de l'ordre de 1.683.000 Ha. Dans cette zone, l'arboriculture occupe environ 287.400 Ha dont 221.500 Ha d'olivier, 42.900 Ha d'amandier et 23.000 Ha de figuier, soit respectivement 37%, 27% et 55% des superficies globales de ces espèces.

Sur la base des facteurs les plus déterminants du milieu physique et constituant l'environnement de l'exploitation à savoir : la topographie, le climat et les sols, il est possible de distinguer 5 grandes unités homogènes :

- Les basses collines pré-rifaines
- Les hautes collines pré-rifaines orientales
- Les hautes collines pré-rifaines occidentales
- Le piémont moyen Atlasique
- Le piémont haut Atlasique.

1. *Les basses collines pré-rifaines*

Cette unité d'espace se caractérise par une altitude généralement inférieure à 800m, des sols argileux généralement profonds et une pluviométrie moyenne comprise entre 500 et 700 mm. Le système de culture est dominé par les céréales qui occupent plus de 60 % de la superficie agricole utile. La mécanisation des travaux des sols intéresse une grande partie des exploitations agricoles.

2. *Les hautes collines pré-rifaines orientales*

Cette unité se caractérise par une altitude supérieure à 800m, des sols à texture limono-argileuses et à profondeur variable selon l'importance de la pente et la roche mère (marnes, schistes, etc…). L'érosion est plus active en absence d'un couvert végétal pérenne. La pluviométrie moyenne est comprise entre 350 et 500 mm.

Le système de culture est basé sur les céréales et une arboriculture diversifiée (olivier, figuier et amandier). Toutefois, lorsque l'altitude dépasse 1200 m, l'amandier devient dominant. Une partie importante des exploitations agricoles utilise la traction animale dans les travaux des sols.

3. *Les hautes collines pré-rifaines occidentales*

Cette unité se caractérise par des sols argileux à profondeur variable selon l'importance de la pente et la roche mère (marnes, schistes, etc…). La pluviométrie moyenne est comprise entre 500 et 800 mm. Le système de culture est basé sur la céréaliculture associée à une arboriculture à base d'olivier et dans des localités bien adaptées de figuier. Une partie importante des exploitations agricoles utilise la traction animale dans les travaux des sols.

4. *Le piémont moyen Atlasique*

Cette unité concerne les provinces de Sefrou, Khenifra, Beni mellal ainsi que le sud de Taza. Il se caractérise par un relief ondulé entrecoupé par des surfaces tabulaires. Les sols sont généralement de texture limono-argileuse avec une charge en cailloux variable selon le profondeur de l'encroûtement calcaire. La pluviométrie moyenne est comprise entre 450 et 650 mm. Les céréales couvrent 60% de la superficie agricole utile. La proportion de l'arboriculture reste inférieure à 10%. La mécanisation des travaux des sols est assez généralisée.

5. *Le piémont haut Atlasique*

Cette unité concerne les provinces d'Azilal, Haouz, Chichaoua et Essaouira. Le relief est caractérisé par une série de sommets étroits entrecoupés par des vallées profondes. Les sols dominants sont les sols rouges à texture limono-argileuse avec une charge caillouteuse variable selon la nature géologique des roches mères. La pluviométrie moyenne est comprise entre 350 et 450 mm. Le système de culture est dominé par une céréaliculture à base d'orge associée à une arboriculture à base d'olivier ou d'amandier. La mécanisation des travaux des sols reste en général peu développée.

ANNEX H.

Data collection form for Rainfed Expansion perimeters

(Canevas de caractérisation des périmètres

d'extension des plantations en zones pluviales)

Programme 2008

PERIMETRE : …….. *(Nom du périmètre)*

I. DONNEES PHYSIQUES

I.1. Localisation

- CT …… de ……..
- Commune rurale : ……
- Douar : ……
- Coordonnées : **X**= …. ; **Y**= …… ; **Z**= ……..

(Joindre carte de délimitation)

I.2. Superficie totale et nombre des bénéficiaires :

• Superficie totale : …….. Ha ;
(La superficie à indiquer est la superficie nette du périmètre. Ce dernier ne doit pas contenir les zones incultes ou les zones de friches ou parcours)

• Nombre de bénéficiaires exploitants :……

I.3. Climat de la zone *(Indiquer le nom et les coordonnés de la station la plus proche)*

- Etage bioclimatique : ……..
- Pluviométrie moyenne annuelle :…….
- Températures moyennes annuelles : Moyenne annuelle= …… C° ;
  Moyenne des maxima= ……..C° ; Moyenne des minima= …….. C°

I.4. Caractéristiques pédologiques et topographiques

- Type de sol :
  - Nom scientifique : …… *(lorsque la carte pédologique existe)*
  - Nom vernaculaire : ……..
- Classe de pente :

Classes de pente	Superficie	%
5 – 15 %		
15 – 30 %		
> 30 %		
Totale		

(Indiquer la source d'informations pour les types des sols et la méthode d'estimation des classes de pente)

II. DONNEES FONCIERES

II.1 Statut juridique :

Statut (*)	Superficie	%	Nb d'exploitation	%
Melk				
Autres				
Total				

(*) Seul le statut melk est éligible

II.2 Répartition des exploitations par classe de taille

Classe de SAU	Exploitations bénéficiaires		Superficie	
	Nbre	%	Ha	%
0 – 5 Ha				
5 – 10 Ha				
10–20 Ha				
> 20 Ha				
Total				

III. DONNEES AGRICOLES

III.1 Assolement actuel au niveau du périmètre

Principales cultures	**Superficie** (campagne 2006/2007)
Céréales :	

- ……	
- ……	
- ……	
Légumineuses :	
- ……	
- ……	
Fourrages	
- ……	
Autres	
Totale	

III.2. Effectif du cheptel au niveau du périmètre (estimation campagne 2006-2007)

Espèce	Effectif
Bovins	
Ovins	
Caprins	
Autres	

IV ORGANISATION PROFESSIONNELLES EXISTANTES

TYPE	NOM	NOMBRE D'ADHERENTS
Coopératives		
Associations		
Autres		
Total		

ANNEX I.

Information on Morocco's soil conservation-erosion control design (practice) standards

The design specifications of erosion-control structures in the Fruit Tree Productivity Project must follow and be consistent with international best practices and recent, relevant experience in Morocco. Technical designs shall be consistent with guidelines in published technical manuals (White House Consulting Engineering, 1997; and USAID, 2004) and CPS from various DPA. Existing design standards will be regularly reviewed and may be modified, if warranted, by MOA's Technical and Science Advisory Panel. The site designs should include, at a minimum, information on the following types of structures and interventions:

Continuous Graded Terraces (*Banquettes*). These structures are appropriate for landscapes with between 5 and 30% slope steepness. Continuous terraces are unsuitable in landscapes with poor soil permeability, shallow soils (<50 cm), a high content of rocks and stones, white or grey soils, greater than 40% clay content, high content of swelling clays, or on landscapes susceptible to landslides or having irregular terrain with numerous ravines and gullies. Absorption (infiltration) terraces are appropriate on slopes ranging from 5-15% with relatively permeable soils in regions with less than 500 mm/yr precipitation. Diversion terraces are appropriate on slopes ranging from 5-30%, in regions with between 500-600 mm/yr precipitation.

Discontinuous Graded Terraces (*Eléments de Banquettes*). These structures are appropriate for landscapes with between 5 and 40% slope steepness. Gaps in the structures are convenient for farmers who wish to travel up and down the slope. They are not suitable in landscapes with poor soil permeability, shallow soils (<50 cm), a high content of rocks and stones, white or grey soils, greater than 40% clay content, high content of swelling clays, or on landscapes susceptible to landslides or having irregular terrain with numerous ravines and gullies. These structures are appropriate in precipitation regimes ranging from 400-650 mm/yr.

Stone Walls (*Murettes*). These structures are appropriate for landscapes with between 5 and 40% slope steepness. They are suitable in landscapes with a high content of rocks and stones. They are not suitable in landscapes with poor soil permeability, shallow soils (<50 cm), a high content of swelling clays, or on landscapes susceptible to landslides or having irregular terrain with numerous ravines and gullies. These structures are appropriate for precipitation regimes ranging from 400-800 mm/yr.

Stone Lines along the Contour (*Cordons de Pierres Sèches*). These structures are appropriate for landscapes with between 5 and 15% slope steepness. They are suitable in landscapes with a high content of rocks and stones, and for all precipitation regimes.

Impluvium (*Cuvettes*). These structures are small water-catchment basins dug around individual trees and vary in area depending on size of tree canopy. They are appropriate for landscapes with between 5 and 40% slope steepness. They are not suitable in landscapes with shallow soils (<50 cm), but are appropriate in all precipitation regimes.

Gabions and Sills. This intervention is appropriate to control erosion from gullies and ravines. It must be accompanied by biological plantings such as carob, acacia and oleanders to stabilize banks of the gully or ravine above and below the gabion or sill.

Fruit Tree Planting Densities. This intervention is appropriate to control erosion from steep landscapes used for annual rainfed cropping. Types of trees planted are dependent on rainfall, soil type, elevation and MOA-farmer group agreement. Density of trees planted is dependent on precipitation, soil type and slope steepness.

Cover Crops. This intervention is appropriate for landscapes with between 30-50% slope steepness. Only no-till cropping systems are allowed on these landscapes after cover crops are harvested or killed.

Annual Intercrops. This intervention is suitable for landscapes varying between 5 and 15% slope steepness. Annual intercropping refers to plantings of cereals (e.g. wheat) and legumes (e.g. faba beans) between rows of fruit trees and terraces. Annual intercropping is suitable for landscapes varying between 15-30% steepness until fruit trees reach maturity, then intercropping should be phased out and replaced with perennial crops. Tillage and planting operations should always be oriented along the topographic contours, parallel to rows of planted fruit trees.

ANNEX J.

Agronomic practices currently recommended in Morocco for managing olive plantations in the rainfed zones targeted by the Fruit Tree Productivity Project.

The principal crop production techniques currently recommended in Morocco for growing olive trees in the rainfed zones targeted by the Project comprise the following operations:

1. Creation of an olive orchard

The successful establishment of olive trees requires, first of all, making a number of important choices on which future productivity of the olive trees will depend, in particular:

- *Field location and soil type*: field(s) should be selected taking into account soil physical qualities (e.g., depth, permeability, water-holding capacity), topography (slope), and orientation to the sun (aspect) which are key factors conditioning future production.
- *Tree density:* the average density (population) recommended in the zones targeted by the Project is 100 trees/ha. However, in more intensive cropping systems, this density may be increased up to 200 trees/ha.
- *Variety:* the choice of the variety to plant should be decided according to its adaptability to the soil and climatic characteristics of the particular zone. The seedlings to be used will have to be one year old seedlings at one year and half, coming from approved and entirely healthy of any attack of insects and diseases cryptogams or viral seedbeds. Several varieties can be recommended for the olive-growing zones targeted by the project, in particular the varieties registered with the official catalogue: Haouzia, Ménara, Dahbia, Picholine of Languedoc, Frantoio, Gordale, Manzanille, Ascolana dura Arbequine, Picual, Carolea, Mastoïdis, and Koroneiki.
- *Planting period:* the optimal period for trans-planting young olive trees is during the period of vegetative rest (November to March). To ensure good early growth after transplanting, the seedlings should be 18 to 24 months old. After planting, seedlings should be staked to protect them from heavy winds. They should also be watered regularly until arrival of the first rains in the fall.

2. Soil management

To maximize the benefits of rainwater for olive orchards, it is recommended that impluviums (small catchment basins) be made around the trees. It is also advised to conduct any soil tillage operations following the contours of hillside slopes in order to encourage retention and absorption of rainwater, reduce evaporation and remove weeds. Two passes per year are recommended: in autumn (before the beginning of the rainy season) and in spring (after the end of the rainy season). In addition, under and around the young trees, it is recommended to maintain the ground clean (weed-free) during the entire year to avoid the infection by olive diseases, in particular Peacock Spot caused by *Spilocaea oleagina*.

3. Fertilization

To foster high-yielding development and production of olive trees, it is necessary to maintain soil fertility at an optimum level by:

- Adding organic soil amendments (organic matter in various forms) to maintain structural quality and stability, permeability, porosity and water-holding capacity of the soil.

- Replacing mineral salts (nutrients) in the soil lost by removal of harvested olives and pruned branches.

The fertilization program used should take into account the nutritional requirements of the olive tree, the inherent fertility of the soil and the type of cropping system. In the zones targeted by the Project, the recommended average organic and inorganic fertilizer applications are as follows:

- For young plantations: 20-40 kg of manure/tree/year and 60-80 grams of nitrogen/tree/year of age.

- For fruit-bearing trees: 40-60 kg of manure/tree/year and 800-1000 grams of nitrogen/tree, i.e., 4-5 kg of ammonium sulfate (21% nitrogen).

Moreover, phosphate-potassium fertilizers should be applied in autumn (October-November), preferably localized at a depth of 25-30 cm.

4. Pruning

The olive tree responds very favorably to pruning. This technique makes it possible to guide the development and shape of the tree towards rapid fruit set and to stabilize annual

production by attenuating the phenomenon of alternate-year fruit-bearing. Several types of pruning are practiced depending on the objective sought:

Tree formation: this is used on young trees during the course of early growth. The purpose is to direct and guide the development of the tree's structure and hasten entry into production. This pruning consists of cutting back the young seedling to 0.60 or 0.70 cm above the ground to favor the growth of future branches. The tree trunk should support the weight of harvest and allow adequate resistance to weather risks (wind, snow).

Fruit development: this allows the tree to give consistent, stable, year-to-year yields, both in quantity and quality, and for the longest period possible. In the absence of pruning, olive trees tend to produce more fruit than it is capable of nourishing, which in part causes the alternate-bearing phenomenon. Indeed, in years of high fruit bearing, pruning is recommended to remove older branches which have already produced in order to encourage the development of new branches that will bear fruit the following year.

Rejuvenation: this consists of eliminating old branches and to foster the growth of new fruit-bearing branches. In effect, a new replacement branch emerges at the base of the older branch that is removed, thus ensuring the continuity of production.

Regeneration and restoration: this is utilized as the trees express signs of decline (drop in output) when the foliage expands in height due to the lack of pruning. This kind of pruning must be carried out in period of vegetative rest; the branches are then cut back within a few tens of centimeters from the trunk. On each branch, it is important to keep a replacement branch. Tree vegetation will be vigorously restored as a function of the intensity of subsequent tree care provided. Usually, starting in the fourth year, the trees return to their initial yield levels. Thereafter, fruit production should be higher than before pruning.

5. Plant health treatments

Protection of olive plant health is quite important given the fact that olive trees are the host for many pests which attack the tree's foliage and cause substantial losses.

Insect Pests

The following are the principal insect pests that attack olive trees:

Olive moth (Prays oleae)

This is a monophagous species (only one host = olive tree). It goes through three generations each year which develop on three different organs (floral buds, fruit pits and the parenchyma of the fruits). It can cause serious damage to the productivity of trees (desiccated floral bunches, olives fallen to the ground, leaf stems perforated). The treatment must start at the beginning of flowering (3 to 4% of flowers opened) and consists of spraying with a solution of Bt (*Bacillus thuringiensis)*.

Olive fly (*Bactrocera oleae*)

Female flies lay eggs in green olives that are the most exposed to the sun. After eggs hatch, the larvae (maggots) develop in the fruit and dig galleries.

¨ *Damage:*

- Falling of fruit
- Reduction in the quantity of oil
- Reduction in the quality of oil due to increased acidity.

¨ *Control methods:*

- Preventive measures during the white period, but this is only effective if they are applied on a regional scale.
- Curative treatments which target the larvae in the fruit, but it is necessary to use systemic non-liposoluble products.
- If no preventive measures are taken, treat in late June-early July and repeat the treatment in September.
- If preventive measures are carried out, install control devises (5 to 10 Gobe-flies/ha) if and when the minimum threshold reaches 5 to 6 flies/trap in July, and start the treatment using poisoned bait.

Olive psyllid (*Euphyllura olivina*)

This insect pest over-winters in adult form within the crooks of buds. Its active feeding period coincides with the development of flower buds. The larvae suck the sap and secrete wax filaments (whitish) from their cireparous glands in which they become covered and that facilitate their recognition.

¨ *Damage:*

- Weakening of trees
- Withering and eventual death of twigs and buds

¨ *Control methods:*

In general, the treatments used against the olive moth and the olive fly are effective against the psyllid.

Fungal and bacterial diseases

In the areas targeted by the Project, the deterioration and damage caused by fungi and bacteria are less important compared to those caused by insects. The principal diseases observed are the following:

- Peacock spot (*Cycloconium oléaginum*)

This fungus attacks the leaves where the damage is the most important and characteristic.

¨ *Damage:*

- Starting from an initial point produced by the germination of conidia, the mycelium spreads outward in concentric rings with a dark green color.

- Symptoms are also characterized by the blackening of the central leaf vein and also by girdling of the petiole causing leaf yellowing and eventually leaf drop.

¨ *Control methods:*

The main control measure is concentrated on prophylactic treatments in order to prevent the germination of fungal spores. These treatments should take place at the end of winter or the end of summer in order to protect olive plantations from invasion by spores at the beginning of spring or autumn. The use of copper-based products (oxychloride and copper sulfate) is very effective. Treatments cause the fall of infected leaves, which contributes significantly to eradication of the disease.

Sooty mold *(Fumago salicinia)*

This disease develops on thick, bushy un-pruned foliage. The control method consists of aerating trees by regular pruning. If chemical treatments are required, a copper-based solution is recommended.

6. Harvest methods

The methods currently used in the targeted zones are stick-beating (“gaulage” in French) and hand harvest.

"Gaulage" refers to the use of a wooden stick or pole ("gaule") which the harvester uses to strike the olive-bearing branches or the fruits themselves, causing them to fall. It is a brutal process which wounds not only olives, but damages the newer, younger branches. However, if this technique is used, then it is recommended to work from the interior of the tree so that the harvester places himself within (not outside) the foliage and thus limits damage appreciably.

Hand harvesting is especially practiced in the case of table olives. It requires the use of ladders as well as baskets for collecting the harvested olives. Although this technique makes it possible to preserve the fruits against physical or mechanical damage, and consequently ensures higher quality fruit, it increases the costs of harvesting considerably (increased time, ladders, etc.). It should be noted that the practice of hand harvesting will reduce the alternate-bearing production phenomenon.

However, *the mechanization of harvest* is recommended more and more by the Extension Service because of its technical and economic advantages compared to "gaulage" and hand harvesting.

Nevertheless, whatever the method of harvest used, it is strongly recommended to:

- use plastic nets spread under the trees to avoid olives becoming dirty or contaminated;

- avoid transporting olives in bulk, and preferably use field-packing crates of low height.

ANNEX K.

Note on the Moroccan nursery sector

Morocco's fruit tree nursery sector has become increasingly modernized, privatized and organized over the past decade or so. Recent Due Diligence conducted by the MCC/ARE team verified the high level of current technical and managerial capacity of Morocco's commercial nurseries to produce and market high-quality, certified, disease-free seedlings of selected varieties of olives, almonds and figs in amounts large enough to meet the needs of the MCA project over the next five years, given sufficient advance notice and firm contracts.

As of July 2007, 52 nurseries (*pépinières* in French) out of some 220 were officially registered and licensed (*agrées*) by the Ministry of Agriculture's (MOA's) Directorate of Crop Protection (DPVTCRF) to market certified plant materials, based on international standards and procedures including regular field inspections. The vast majority of those nurseries produce certified olive seedlings, and many also produce certified almond and fig plants (*rosacées à noyau*). These nurseries propagate and sell millions of certified tree seedlings every year, many through government agencies for use in their programs to support the fruit tree sector.

A list of these nurseries together with licensing data, contact information, and plant species marketed is found in Table K-1of this Annex. In addition, Table K-2 of this Annex provides data on the number of certified olive seedlings produced in 2006 by region and by nursery. In all, 27 nurseries across six regions produced 9.4 million certified olive plants. This is ample evidence of the large, current capacity of Morocco's private sector system of fruit tree nurseries. The Meknes region accounted for more than 50% of this production, with Marrakech at 18% and Tangiers at 16%.

In March 2006, 15 officially registered nurseries, mostly from the Meknes region, came together to create the Moroccan Association of Certified Plant Producers (*L'Association Marocaine des Producteurs de Plants Certifiés*, or AMPCC). The main tree species targeted are olives, citrus, tree nuts and grapes. Primary objectives of AMPCC include improvement of quality of plants produced by nurseries, technical support and encouragement for improvements in non-registered nurseries, promotion and further growth of the sector, exchange of information and technology transfer among members, and stronger representation of the sector vis-à-vis public agencies.

Currently headquartered in the Chamber of Agriculture in Meknes, this regional-based organization seeks to expand into a truly national association, as its name would imply (probably a federation or union of associations), by joining together with other regional nursery groups. More information on AMPCC is provided on its website (www.lespepinieresdumaroc.ma).

Orders for tree seedlings (numbers specified by variety) will have to be placed by December of the year prior to delivery, so that the nurseries can plant cuttings in January-February, grow them for 10-12 months, and then deliver sturdy, proper-sized seedlings for transplanting in farmers' fields during the period of November-February (rainy season). Rural engineering firms will be competitively contracted by MOA to carry out the land terracing and associated earthworks, tree planting, and the first two year's orchard maintenance. This includes the actual transplanting in participating farmers' fields of seedlings which these firms will procure directly from the nurseries as an integral part of their contracts.

Olives and figs in the rainfed bour areas targeted for expansion by the MCA project will be planted at densities of 100 plants/ha on average (almonds at a slightly higher population). Indicative of the magnitude of tree seedlings required annually, 600,000 plants will be needed for olives alone (by far the largest component) for the first year's planting in 2008 of approximately 6,000 ha (up to 30 perimeters) and roughly 3 million plants per year for the next three years (2009-2011). The fifth and final year (2012) planting of some 24,000 ha (2.4 million trees) would result in a total planting of 100,000 ha of olives over the life of the project and thus a total of 12 million trees. In addition, 2 million almond and fig seedlings will be required for transplanting on 20,000 ha over the 5-year project period. Overall, approximately 14 million plants will need to be procured from Morocco's nursery sector for planting in the rainfed areas selected for expansion (new plantations) over the life of the project.

In addition, a sizeable quantity of similar seedlings (again mostly olives) – a less certain number at this stage, but probably several million – will be needed for densification (in-filling) in existing, established plantations of selected perimeters in both rainfed and irrigated (PMH) areas, although these seedlings will not be purchased with MCC funds but rather through existing farmer-support (partial subsidy) programs sponsored by MOA.

Table K-1. List of nurseries officially licensed/registered to market certified plant materials in Morocco as of July 2007.

(LISTE DES PEPINIERES AGREES A COMMERCIALISER

DES PLANTS CERTIFIES AU MAROC, MOA, JUILLET 2007)

Etablissements (Companies)	N° et date arrêté et B.O (Cert. No. And date)	Espèces (Crop Species)	Adresse (Address)
SOCIETE AGRIVAL	N°960-06 Du 19/5/06 B.O N° 5430 Du 15/6/06	Plants certifiés d'olivier, de la vigne et des semences et des plants certifiés des rosacées à noyau	49-50 Rue Capitaine Thiriat Casablanca Tél: 022 61 97 47/48 Fax : 022 61 97 49
SOCIETE AGROMILLORA MAROC	N°473-07 Du 14/3/07 B.O N° 5520 Du 26/4/07	Plants certifiés d'oliviers et de rosacées à noyau	310, Rue Hajj Omar Riffi Tél : 022 46 02 95 Fax : 022 44 44 07
LA SOCIETE BOUFEKRANE	N°935-07 Du 16/5/07 B.O N° 5532 Du 7/6/06	Plants certifiés de l'olivier	sise 2 Bis, Lotissement Al Amal, Boufekrane, Méknès
DOMAINES EL BOURA	N° 2613-05 Du 29/12 /05 B.O n° 5392 Du 2/2/06	Plants certifiés des agrumes, d'olivier, rosacées à noyaux, la vigne et du fraisier.	B.P. 259 Taroudant 83000 Tél :048 85-24-43 et 85-35-33 Fax : 048 85-23-06
SOCIETE EXPRAG	N°2768-06 Du 06/12/06 B.O N° 5488 Du 4/1/07	Plants certifiés d'olivier	BP 39, Douar Laâouamra Rmel, Commune Rurale Laâouamra, Province de Larache, Tél : /Fax : 039 90 08 70
ISSEMGHY BIOTECHNOLOGIES	EN COURS	Plants certifiés d'olivier et de vigne	Banlieue Tribu Haouz Amzri, Loudaya B.P : 57 Marrakech Tél : 044 36 45 47 Fax : 044 36 44 15
SOCIETE ITALPHYTO	N° 958-06 Du 9/5/06 B.O n° 5430 Du 15/6/06	Plants certifiés d'olivier et de vigne	Banlieue Tribu Haouz Amzri, Loudaya B.P : 57 Marrakech Tél : 044 36 45 47/Fax : 044 36 44 15
LA SOCIETE LES CHAMPS MODERNES	N°938-07 Du 16/5/07 B.O N° 5532 Du 7/6/06	Plants certifiés de l'olivier et des semences et des plants certifiés des rosacées à noyau	Faddane Aghriss, Route Khmiss Aït Amira Biougra, Commune de Saffa, Agadir Tél/Fax : 028 81 86 16
Pépinière	N°123-07 Du 26/1/07	Plants certifiés d'olivier	Domaine Toulal Commune Rurale A¨t Ouallal

AIT OUALLAL	B.O n°5504 Du 1/3/07		Tél : 032 11 56 49/ Fax : 035 52 22 07
Pépinière AKROUT NAIMA	N°1924-06 Du 15/8/06 B.O n°5462 Du 5/10/06	Plants certifiés d'olivier	Douar takatert, Machiakhat Azkar Sbiti Aït Radi, Aghmat, Marrakech
Pépinière AIN DHAB (ex BELLOTA)	EN COURS	Plants certifiés d'olivier	2, Rue Abdellah Guennoun , Lot Ikram, BP : 56 37, rue Lalla Zouaoua, Ouzzane(ancienne addresse)
Pépinière AL KHAIR	N°474-07 Du 14/3/07 B.O N° 5520 Du 26/4/07	Plants certifiés d'olivier Semences et plants certifiés des rosacées à noyau	Douar Chaouia Khénichet Tél : 061 21 01 13 Fax : 037 72 58 95
Pépinière AIN MESBAH	N°634-04 Du 12/4/04 BO n°5214 Du 20/5/04	Plants certifiés d'olivier	Douar Azragen, Caidat de Mokresset, Province de Chefchaouen
Pépinière AMAL	EN COURS	Plants certifiés d'olivier	Aït Yahya Ras Jerry, Méknès, Tél : 065 18 12 42
Pépinière AZLEF	N°2723-06 Du 05/12/06 B.O N° 5488 Du 4/1/07	Plants certifiés d'olivier	Commune Rurale Azlef, Caidat de Beni Touzine, Cercle du Rif, Province de Nador.
Pépinière BABRAM	N° 1633-04 Du 7/9/04 BO n° 5262 Du 4/11/04	Plants certifiés d'olivier	Immeuble 51, lotissement El Kortbi, Avenue Prince Moulay Abdellah, Menara, Marrakech
Pépinière BENCHEKROUN	N°2490-06 Du 26/10/06 BO n°5482 Du 14/12/06	Plants certifiés d'olivier	Douar El Bacha, C. Saada, Marrakech
Pépinière BERRADA	N°1926-06 Du 15/8/06 B.O n°5462 Du 5/10/06	Plants certifiés de l'olivier et des semences et plants certifiés des rosacées à noyau	Km 12, Route Ourzezate, Marrakech
Pépinière BIYADE	N°768-05 Du 5/4/05 B.O n° 5318 Du 19/5/05	Semences et plants certifiés des rosacées à noyau et d'olivier.	Douar Aït Amar, Km 12, Route Meknès, Boufekrane Tél : 061.207281
Pépinière BRAHIM OUTOUKART	N°1923-06 Du 15/8/06 B.O n°5462 Du 5/10/06	Plants certifiés d'olivier et Semences et plants certifiés des rosacées à noyau.	Tloh, km 48, route d'El Kelaa Bloc 2n° 723, avenue Laayoune, Azli, Marrakech
Pépinière BRAHIM ZNIBER	N°1780-04 Du 15 /10/04 BO n°5270 Du 2/12/04	Plants certifiés des rosacées à noyau, de la vigne et d'olivier.	11, Rue Ibn Khaldoun, Meknes Tél : 055-30-00-06/04/31 GSM : 065-15-15-05
Pépinière CHAYMAE	N° 1184-05 Du 6/6/05 B.O n° 5332 DU 7/7/05	Plants certifiés d'olivier et plants certifiés des rosacées à noyau	45, Rue 9 Fassia Mabrouka, Hacienda, Meknes Tél : 055-51-75-76 GSM : 061-35-83-62

Pépinière S.C.A.DAHBIA	N° 1638-04 Du 7/9/04 BO n° 5262 Du 4/11/04	Plants certifiés des rosacées à noyau, des agrumes, de la vigne et d'olivier.	Km16, route Meknès-Haj Kaddour, Province de Meknès Tél : 30.00.35 Fax : 30.01.43
Pépinière EL KHATTABI	N° 121-07 Du 26/1/07 BO n°5504 Du 1/3/07	Plants certifiés d'olivier	Tizamourine, Centre Lahri, Province de Khenifra Tél : 055-38-33-32/39-40-28 GSM : 061-17-16-34
Pépinière EL KANDOUCHI	N° 1632-04 Du 7/9/04 BO n°5262 Du 4/11/04	Plants certifiés des rosacées à noyau et d'olivier	60, Agdal, Meknès
Pépinière EL MOUTAOUAKIL	N° 736-06 Du 14/4/06 B.O n° 5427 Du 5/6/06	Plants certifiés d'olivier	Km 12, Route Fès-Rabat B.P 3027 Toulal Méknès GSM : 061 36 86 24
Pépinière ESSNOUSSI	N°2491-06 Du 26/10/06 BO n°5482 Du 14/12/06	Semences et plants certifiés des rosacées à noyau et d'olivier	Chouitar, Douar Sbania, A¨t Ourir, Marrakech
SOCIETE FERTIVAL	N°2487-06 Du 26/10/06 BO n°5482 Du 14/12/06	Plants certifies d'olivier	Avenue Hassan II , n° 12 Marrakech Tél : 034 43 42 07 / 09 Fax : 034 43 39 44
Pépinière EZZOUHOUR	N° 73706 Du 14/4/06 B.O n° 5427 Du 5/6/06	Plants certifies d'olivier	Route de Fqih Ben Salah , Ouled Ayad, GSM : 076 05 82 89
Pépinière L'AVENIR	N°2492-06 Du 26/10/06 BO n°5482 Du 14/12/06	Plants certifiés d'olivier	Route de Khénifra, km 3 Tigrigra, Azrou, Province d'Ifrane GSM : 066 14 42 63/ 067 17 50 26
Pépinière LE RIFTON	N°122-07 Du 26/1/07 BO n°5504 Du 1/3/07	Plants certifiés d'olivier	A¨t Naämane, Aït Saïd, C.R. Aït Naämane, Apt 14, Résidence El Ahali, Rue Tarfaya, Méknès
Pépinière MABROUKA	N°765-05 Du 5/4/05 B.O n° 5318 Du 19/5/05	Plants certifiés d'olivier et de rosacées à noyaux	Aït Ikkou, Aït Yazem, El Hajeb, Méknès Tél 01.18.37.01
Pépinière MANTOUJ DAYAAT SAD ALWAHDA	N°1927-06 Du 15/8/06 B.O n° 5462 Du 5/10/06	Plants certifiés d'olivier	Douar Asjen, Commune Rurale Asjen, Province Chefchaoune
Pépinière MOYEN ATLAS	N°454-04 Du 15/3/04 B.O n°5204 Du 14/4/04	Plants certifiés d'amandier	Km04, Tigrigra, Route de Khenifra, Azrou Tél : 055 56 21 92 Fax : 055 56 22 06
Pépinière OLIVE ENA	EN COURS	Plants certifiés d'olivier	Domaine de l'Ecole National d'Agriculture de Meknès, km10, route Haj Kaddour, Meknès

			Tél : 300238
Pépinière OUM ERRABIA	N°652-06 Du 4/4/2006 B.O N° 5419 Du 8/5/06	Plants certifiés d'olivier	Km 7, Douar Lenda, Lekbab, Khénifra Tél : 068 37 77 32
SOCIETE « PEPINIERE OUISLANE »	EN COURS	Plants certifiés d'olivier	36, Douar Izroufane , Aït Oujil, Commune Sidi Slimane Moulkifane Tél : 067 39 32 32
Pépinière OUED SROU	N° 1185-05 Du 6/6/05 B.O n° 5332 DU 7/7/05	Plants certifiés d'olivier	Douar Lenda, km5, El Kbab, Province de Khénifra
LA Pépinière PARC- OLIVE DE MEKNES	N°936-07 Du 16/5/07 B.O N° 5532 Du 7/6/06	Plants certifiés de l'olivier et des semences et des plants certifiés des rosacées à noyau	sise Lotissement 59, Douar Aït Boudar Mejat, Méknès
Pépinière PROVINCIALE OUED AMLIL	N°8906 Du 26/10/06 BO n°5482 Du 14/12/06	Plants certifiés d'olivier	Centre Oued Amlil, Taza
Pépinière SABER	N°650-06 Du 4/4/2006 B.O N° 5419 Du 8/5/06	Plants certifiés d'olivier	Aït Yahya, Sebaa Ayounes, Meknès
Pépinière SAIS	N°2488-06 Du 26/10/06 BO n°5482 Du 14/12/06	Plants certifiés d'amandier et d'olivier	44, Boulevard Idriss II, Meknès.
Pépinière AGRUMES MENASRA (SPAM)	N° 1635-04 Du 7/9/04 BO n° 5262 Du 4/11/04	Semences et plants certifiés d'agrumes	Douar Kabat, CR Ben Mansour, Province Kénitra GSM : 061.22.95.08
Pépinière SAPIAMA	N°767-05 Du 5/4/05 B.O n° 5318 Du 19/5/05	Semences et plants certifiés d'agrumes	325, Avenue Hassan II, Agadir Tél : 82.11.45/84.59.06/84.59.07 Fax : 84.59.05/84.74.55
Pépinière SUPER AGRI	N°654-06 Du 4/4/2006 B.O N° 5419 Du 8/5/06	Plants certifiés d'olivier et d'amandier	Km 42, R.P. 1 Bouznika B.P. 131/ Tél : 037 74 54 35 Fax : 022 25 38 08 GSM : 061208841/061435022
Pépinière SODEOM	N° 1285-06 Du 26/6/06 BO n°5444 Du 3/8/06	Plants certifiés d'olivier	Quartier Industriel Aïn Slougui, Méknès Tél : 035 50 17 90 Fax : 035 50 16 42
Pépinière TADLA	N° 130.06 Du 24/1/06 BO n° 5404 Du 16/3/06	Plants certifiés d'olivier	Douar Ghanou, Route Bezaza, Ouled Yaich, Béni Mellal Tél : 023 42 13 96 Fax : 023 42 31 65
Pépinière TTOBA	N°773-05 Du 5/4/05 B.O n°5314 Du 5/5/05	Plants certifiés d'olivier	41, Rue Atlas n°56, Agdal, Rabat. Tél : 037 67 31 54 Fax : 037 77 34 54 E-Mail : ttoba@menara.ma
Pépinière ZAIM	N°2116-05 Du 25/10/05	Plants certifiés d'olivier, de rosacées à noyaux et de vignes	Souk El Gour, province El hajeb, Wilaya de Meknes,

	B.O n°5378 Du 15/12/05		
Pépinière ZRAÏB	N°477-07 Du 14/3/07 B.O N° 5520 Du 26/4/07	Plants certifiés d'olivier	93, Avenue Hassan II, Berkane
SO DE.A (SOCIETE DE DEVELOPPEMENT AGRICOLE)	N°2724-06 Du 05/12/06 B.O N° 5488 Du 4/1/07	plants certifiés des rosacées à noyau et des agrumes et des plants certifiés d'olivier	Avenue Haj Ahmed Cherkaoui, Agdal, Rabat. Tél : 77-08-25 et 77-25-65
SOGECOPA (SOCIETE DE GESTION DE CONSEIL ET DE PROMOTION AGRICOLE)	N°2766-06 Du 06/12/06 B.O N° 5488 Du 4/1/07	plants certifiés de rosacées à noyau, de fraisier, d'olivier	3, rue Assafi, Rabat Tél : 76.18.50 Fax : 76.19.56

Table K-2. Production data of certified olive plant materials by region and by nursery in Morocco in 2006

(SITUATION DES PRODUCTIONS DE PLANTS CERTIFIES D'OLIVIER PAR REGION ET PAR PEPINIERE AU MAROC, MOA, ANNEE 2006)

REGIONS	***PEPINIERE (Nursery)***	***PRODUCTION***
MEKNES	*BYAD*	*120.000*
	ZNIBER	*469.000*
	CHAYMAE	*795.300*
	DAHBIA	*140.000*
	EL KANDOUCHI	*765.194*
	EL KHATABI	*282.572*
	MABROUKA	*520.000*
	OLIVE ENA	*23.443*
	OUED SROU	*685.000*
	OUM ERRABIA	*96.000*
	SABER	*356.880*
	SAIS	*368.440*
	SODEOM	*125.000*
TOTAL MEKNES		***4.746.829***
MARRAKECH	*AIT BABRAM*	*422.000*
	BERRADA	*158.000*
	OUTASSORT	*1.000*
	OUTOUKART	*826.000*
	ESSNOUSSI	*233.000*
	BEN CHEKROUN	*69.000*
	SODEOM	*3.446*
TOTAL MARRAKECH		***1.712.446***
BENI MELLAL	*TADLA*	*154.000*
	EZZOUHOUR	*198.000*
TOTAL BENI MELLAL		***354.000***

TANGER	*AIN DHAB*	*600.000*
	AIN MESBAH	*270.000*
	MA NTOUJ DAYET SAD ELWAHDA	*620.000*
TOTAL TANGER		***1.490.000***
FES	*OUED AMLIL*	*54.000*
TOTAL FES		***54.000***
OUJDA	*COOPERATIVE AZLAF*	*1.000.000*
TOTAL OUJDA		***1.000.000***
TOTAL GENERAL		***9.357.275***

ANNEX L. Note on pesticide use in Morocco arboriculture (Swezey, D.M., 2007)

Table L-1: Pesticides currently in use for fruit trees in Morocco

Pesticide Name	Active Ingredient	PIC	POP	RUP(for use only by certified applicator)	Banned	Voluntarily Withdrawn	Strictly Regulated/ Severely Restricted in U.S.	Comments	EU Sit.	Year of last availabl e info	USEPA Code	Produc t Reg. Numbe r	Links
Decis Protech 015 EW	Deltamethrin	No	No	Yes (emulsi -fiable concen trate)	No	No	No	EPA toxicity level II (Moderately Toxic)	A number of deltamethrine products are banned for outside use in Denmark. These include Decis 2.5 EC, Decis Micro, Inter.Deltamethrin, IT-Deltamethrin, LFS Deltamethrin. Deltamethrin is assessed to be toxic to aquatic organisms and therefore harmful to the environment.	2003	097805		
Dimethoate 40 EC	Dimethoate	No	No	No	No	No	No	EPA toxicity level II (Moderately Toxic). The USEPA determined in July, 2006 that Dimethoate is eligible for re-registration.		2006	035001		
Dimethon	Dimethoate	No	No	No	No	No	No			2006			

Dimetrox 40	Dimethoate	No	No	No	No	No	No			2006			
Dimezyl EC 40	Dimethoate	No	No	No	No	No	No	Toxic to aquatic organisms	Has an EU classification as harmful, dangerous to the environment	2006			
Dipel PM	B. Thuringiensis	No	No	No	No	No	No	Toxic to aquatic organisms		2003	006423		
Dipterex 80 SP	Trichlorfon	No	No	No	No	Yes	No	Toxicity category II (toxicity to humans and aquatic organisms). Trichlorfon products are restricted in Indonesia and banned for use in Kuwait. Trichlorfon was voluntarily cancelled by the manufacturer, Bayer, on November 21, 1995. It was cancelled for use on food, feed and field crop.		2006	057901	3125-118	http://www.epa.gov/oppsrrd1/REDs/0104.pdf
Endo 35 EC	Endosulfan	No	No	Yes	No	No	No	Category I toxicity level (highly toxic)	Endosulfan is restricted in Finland and Canada and banned in Norway and the Netherlands. These countries cite toxicity to fish and bees, as well as documented cases of intoxication of humans.	2006	079401		
Endopron	Dimethoate	No	No	No	No	No	No			2006			
Endosulfan 35	Endosulfan	No	No	Yes	No	No	No	Category I toxicity level (highly toxic)		2006			

Karate 5 EC	Lambda Cyhalothrine	No	No	Yes (all formulations)	No	No	No	Very Highly Toxic to Fish		2003	128897		
Keythion	Malathion	No	No	No	No	No	No			2006	057701		
Lebaycid 50 EC	Fenthion	No	No	Yes (emulsifiable concentrate)	No	Yes	No	Category II toxicity		2006	053301		
Likeroate 40	Dimethoate	No	No	No	No	No	No			2006			
Malapron	Malathion	No	No	No	No	No	No	Highly toxic to aquatic organisms,		2006			
Malathion 50	Malathion	No	No	No	No	No	No			2006			
Malyphos 50	Malathion	No	No	No	No	No	No			2006			
Methidaxide 40	Methidathion	No	No	Yes (all formulations, except for use in nurseries, on sunflowers and safflower)	No	No	No	Methidaxide 40 is not a U.S. product		2006			
Perfekthion	Dimethoate	No	No	No	No	No	No	Active since December 7, 1971.		2006		7969-32	
Polathion	Malathion	No	No	No	No	No	No			2006			
Promazit Blanche	Huile Minerale (Mineral Oil)	No	No	No	No	No	No	Category III level of toxicity		2006	063502		
Promethion	Dimethoate	No	No	No	No	No	No			2006			
Prosulfan	Endosulfan	No	No	Yes	No	No	No	Category 1 toxicity		2006	100301		
Rogor L 40	Dimethoate	No	No	No	No	No	No			2006			
SIF Malathion 50	Malathion	No	No	No	No	No	No			2006			
Spendos EC	Endosulfan	No	No	Yes	No	No	No			2006			

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Superathion 50 EC	Malathion	No	No	No	No	No	No			2006			
Systogor 40	Dimethoate	No	No	No	No	No	No			2006			
Thiodan 35 EC	Endosulfan	No	No	Yes	No	No	No	Approved on Feb 22, 2000. Category I toxicity.	Thiodan 35 is banned for use in Norway	2006		264-637	
Thionex 35 EC	Endosulfan	No	No	Yes	No	No	No			2006			
Thiordax 35 EC	Endosulfan	No	No	Yes	No	No	No			2006			
Trichlorfon 80 PS	Trichlorfon	No	No	No	No	No	No			2006			
Ultracide 40 EC	Methidathion	No	No	Yes	No	No	No	Methidathion has been cancelled for all uses and purposes in Canada by the Pest Management Regulatory Agency					

Table L-2: Detailed information on pesticide ingredients

B. Thuringiensis
Bacillus Thuringiensis has been registered for use by the EPA since 1997. There are no EU restrictions on the use of this pesticide.
Deltamethrin:
Deltamethrin was registered for use as of January 28, 2005. The pesticide Deltamethrin is a restricted use pesticide (RUP) according to the U.S. EPA (2003). It can only be sold to or handled by a certified applicator or someone under the supervision of a certified applicator. It is classified as such because of its high toxicity to aquatic organisms. The Deltamethrin products that Morocco uses are:
1. Decis Protech 015 EW
a. This product is substantively similar, if not identical, to the U.S. product Decis 1.5 EC, both of which are made by Bayer Cropscience. This U.S. product is an active registered U.S. pesticide and is rated as highly toxic, requiring the word "danger" to appear on its label.
Dimethoate:
The pesticide Dimethoate was declared eligible for re-registration by the EPA on July 31, 2006. The EPA has rated Dimethoate as a class II level of toxicity (moderately toxic) pesticide. Any U.S. product that contains Dimethoate as an active ingredient must have the word "warning" on its label. It is classified as severely restricted in the country of Belize, the only country with such a classification. Dimethoate has been certified for use in the European Union. The pesticide products Morocco uses that contain Dimethoate as the active ingredient are:
1. Dimethoate 40 EC
2. Dimethon
a. Dimethon is registered for use in Spain but it is a restricted use pesticide—it is reserved for registered applicators. http://www.mapa.es/agricultura/pags/fitos/registro/productos/pdf/11796.pdf
3. Dimetrox 40
4. Dimezyl 40 EC
5. Endopron
a.
6. Likeroate 40
a. No Information

7. Perfekthion
8. Promethion
9. Rogor L 40
a. A pesticide product made by the Italian company Isagro that is composed of dimethoate 400 g/l.
10. Systogor 40
Endosulfan:
Endosulfan is a toxicity class I (highly toxic) for acute oral, and primary eye irritation toxicity. According to a July 31, 2002 Re-registration Eligibility Decision (RED) Endosulfan is a restricted use pesticide (RUP). The EPA determined that labeling of all Endosulfan products should contain the following:
“RESTRICTED USE PESTICIDE"
“Due to acute toxicity to humans, aquatic organisms, and avian species.”
"For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.”
The EPA determined that Endosulfan and Endosulfan products are eligible for re-registration, provided that:
“(1) additional required data will confirm this decision for occupational exposures associated with the
application of dip treatment to roots or whole plants and ecological risks; and (2) the risk mitigation outlined in the RED are adopted, and label amendments are made to reflect these measures.”
The entire re-registration eligibility decision (RED) can be found here:
http://www.epa.gov/oppsrrd1/reregistration/REDs/endosulfan_red.pdf
Toxicity: According to the EPA “Endosulfan is classified as highly toxic to birds and mammals on an acute exposure basis and moderately toxic to birds on a subacute dietary basis. Chronic toxicity data on birds and mammals revealed that reproduction and growth were the most sensitive endpoints.” Endosulfan is a Toxicity Category 1 for Primary Eye Irritation—which required a Restricted Entry Interval (REI) of 48 hours for all Endosulfan uses.

European Union: Endosulfan is prohibited for use, registration, and sale in the European Union. http://eur-lex.europa.eu/LexUriServ/site/en/oj/2005/l_317/l_31720051203en00250028.pdf
Morocco Products:
1. Endo 35 EC
a. This product is not made in the U.S. Information about this product is unavailable.
2. Endosulfan 35
a. The manufacturer, Cali Maroc, is a subsidiary of Arysta LifeScience. There is no registered product called Endosulfan 35 in the U.S., but it may be substantively similar to any other product that is has endosulfan 350 g/l as an active ingredient.
3. Prosulfan
a. Prosulfan is not a U.S. product
4. Thiodan 35 EC
a. Produced in Morocco by Bayer MG., there is no such product name in the United States. However, Bayer manufactures a product called Thiodan Technical, which is 95% active ingredient Endosulfan, and was requested for voluntary cancellation in the U.S. on May 25, 2005 by Bayer.
5. Spendos EC 35
a. Not a U.S. product, no information available.
6. Thionex 35 EC
a. On May 25, 2005, there was a pending request to voluntarily cancel the registration of Thionex 35 EC by its manufacturer, Makhteshim Chemical Works, which is an Israeli Company. It is unclear whether this is the same product registered for use in Morocco, but it is likely that it is substantively the same, with endosulfan 35% emulsifiable concentrate as its active ingredient.
7. Thiordax 35 EC
a. Not a U.S. product, no information.
Fenthion
Because all food uses of Fenthion have been voluntarily cancelled, the EPA has revoked all food residue tolerances. http://www.epa.gov/oppsrrd1/REDs/0290ired.pdf
"A Registration Standard was issued in June1988. In the Registration Standard, the Agency classified all fenthion end-use products as Restricted Use pesticides based on avian, fish and aquatic invertebrate toxicity. The avicide product (Rid-A-Bird) was cancelled in March 1999. All

other uses except the mosquito adulticide use in Florida and direct livestock treatment were voluntarily cancelled by the registrant in response to the Registration Standard."
Lambda-Cyhalothrin:
Classified as a restricted use pesticide (RUP) by the U.S. EPA (2003), because of its toxicity to fish and aquatic invertebrates. Morocco Pesticide:
1. Karate 5 EC
a. It is an active pesticide registered by the EPA as category I toxicity (highly toxic), requiring the word "danger" to appear on the product label. The U.S. product Karate Insecticide, manufactured by the same company, Syngenta, was actively registered as of 6/27/2003.
Malathion:
Malathion was eligible for re-registration as of 07/2006. http://www.epa.gov/oppsrrd1/REDs/malathion_red.pdf
Products:
1. Malapron
2. Malathion 50
3. Malyphos 50
4. Polathion 50
5. Sif Malathtion 50
6. Superathion 50
Methidathion:
Methidathion is classified as a restricted use pesticide (RUP) by the U.S. EPA (2003) because of its residue effects on avian species. Methidathion was made eligible for re-registration by the EPA on 04/2002. http://www.epa.gov/oppsrrd1/REDs/methidathion_ired.pdf
Methidathion has been cancelled for all uses and purposes in Canada by the Pest Management Regulatory Agency. Sale at the retail level was cancelled in 1999, and use of the pesticide was prohibited after December 31, 2002.
Products:
1. Methidaxide 40
a. Not a U.S. product. No information available.
2. Ultracide 40 EC
a. Not a U.S. product

Triclorfon
As of 09/2001, Trichlorfon was eligible for re-registration. Trichlorfon is a toxicity level II (Moderately Toxic) for acute oral toxicity. The Agency (EPA) has determined that only indoor and outdoor non-food and non-feed uses of trichlorfon are eligible for re-registration. Trichlorfon is *not* a restricted use pesticide (RUP).
"The terrestrial food and feed crop uses have been voluntarily cancelled and request for voluntary cancellation has been received for the dermal livestock treatment."
http://www.epa.gov/oppsrrd1/REDs/0104.pdf

In Morocco, Law 42-95 governs the control and the organization of pesticide products in agriculture. This law covers the importation, the formulation from active ingredients, and the distribution of pesticides. The Index Phytosanitaire Maroc 2007, issued by the Moroccan Association of Plant Protection provides detailed information on all pesticide products in use in the country in olive, fig and almond plantations. Most due diligence field observations indicate that fertilizer and pesticide use under rainfed conditions and in the proposed PMH and oasis project sites is low.

ANNEX M.

List of soil conservation/tree planting companies currently qualified by Morocco's Ministry of Agriculture

(LISTE DES ENTREPRISES DES TRAVAUX DE CONSERVATION DES SOLS ET DE PLANTATION FRUITIERE ET FORESTIERE AU MAROC, MOA, 2007)

La réalisation des travaux de conservation des sols et de plantation agricoles sera confiée à des entreprises privées spécialisées dans ces domaines par appel à la concurrence et ce selon les procédures qui seront convenues entre le MCC et le Gouvernement marocain. Les appels d'offres seront ouverts aux entreprises marocaines et étrangères présentant les qualifications et expériences requises ainsi que les capacités techniques et financières suffisantes pour l'exécution des travaux demandés.

En ce qui concerne les entreprises marocaines, elles sont soumises au système de qualification et de classification des entreprises de bâtiments et des travaux publics institué par le décret n° 2-94-223 du 16 juin 1994 et qui a été étendu aux autres activités, notamment les aménagements hydro agricoles et les travaux de conservation des sols et de plantation.

Ainsi, la classification des entreprises dans une branche d'activité donnée est faite conformément à l'article 3 du décret précité. Cette opération est basée sur l'importance quantitative et qualitative des moyens de production de l'entreprise, du volume des travaux qu'elle peut réaliser et de ses performances techniques. Les critères retenus sont :

- le chiffre d'affaires qui témoigne de l'activité et des capacités de l'entreprise.

- l'encadrement qui traduit le niveau de performances qualitative et quantitative de l'entreprise.

En matière des travaux de conservation des sols et de plantation, le système de classification a été mise en place par l'arrêté n°637-02 du 5 avril 2002 du Ministre Délégué auprès du Ministre de l'Agriculture, du Développement Rural et des Eaux et Forêts, chargés des Eaux et Forêts et qui a été modifié par l'arrêté du Premier Ministre n° 3-57-06 du novembre 2006. Actuellement plus de 120 entreprises sont qualifiées pour intervenir dans les domaines de travaux de conservation des sols et de plantation (voir liste ci-dessous).

- Sté SOTRAGFOR (Sarl)
- ADLAOUI Mohamed
- BENKIRAN Ahmed
- BAKKALI Mohamed
- SABER Ahmed
- TRAGECFOR Sarl
- AZZOUZ Sellam
- BOUGHLALA Mustapha
- Sté BOUDERBALA (Sarl)
- Sté SOTRAFOB
- TAYEBI Saîd
- TAYEBI Mohamed
- ZMAROU Mohamed (P.phy)
- TATHNOUT Hassan
- Sté GUETTAF TRAVAUX (sarl)
- BARDIJ Abderrahman
- BARDIJ EL Hassan

- TAIBI Boujemaâ
- Sté LA TROENE
- Sté BABE ROPE (Sarl)
- EL YOUNANI Ahmed
- MOUSSA Ouadie (p.phy.)
- SANHAJI Mohamed (p.phy.)
- TAYEBI Morad (p.phy.)
- SANHAJI Abdelkader (p.phy.)
- EL ABDESLAMI Mohamed (p.phy.)
- ZMARROU Ameur (p.phy.)
- BEN HAJ Ben Aîssa
- BEN HAJ Mohamed
- BOUMGHAZEL Said
- BOUGHLAL Abdelmalik (p.phy.)
- Etablissement AHOUZI Mohamed (sarl)
- MANSOURI Ali
- Sté TTOBA Travaux
- SAADOUNE Ahmed
- CHAMMAK EL Mahjoub
- ANJAR et Cie (Sarl)
- AKOUTEI Benomar
- RADI Said
- Sté DERKOUCH Sarl
- Sté HIND de travaux, Etude et Services
- Sté FORET VERT2
- Sté SORADET Sarl
- Sté OUM ERRABIE
- Sté FLORGARDEN Sarl
- Sté SOGATRAF
- Sté AMRAOUI (Sarl)
- Sté SORETA Sarl
- CHAROUF Abdelhak
- EL MANSOURY Mohamed
- Sté FORKACEM SARL (AU)
- OURBAT Abdelmalik
- JEHNI Mohamed
- ELFELHI Mohamed
- RETMI Mohamed
- AIT ZIAD Mustapha
- BOUJONOUI HASSAN
- ADOCH SAID
- OURBAT Lahcen
- GHANEM Ahmed
- Sté DIR ATLAS
- Sté TALBI Abdellah et frères (sarl)
- Sté T.T.K.A (Sarl)
- Sté B.K.M Travaux
- Sté SOTRACOTAS
- Sté UNION ATLAS GIE
- Sté OULBEL Sarl
- Sté DIVAC
- Sté TISSEDERINE (Sarl)
- Sté ESPACE VERT ANYSS
- KHOUYA Mohamed
- OUCHIKH Ahmed
- OUTFERKAL Travaux Azilal (Sarl)

- Entreprise EL HALLAOUI (Sarl) des travaux
- BOUCHBOURA Mohamed
- TALBI Abdellah
- Sté TIZROINE Travaux Sarl
- Sté TAZANI Sarl
- Sté BAADI Fréres
- Sté TOTRADEF Travaux divers
- LAMRINI Hassan
- KERARMI Mohamed
- Entreprise SAIDI Hammou
- OUKANNOU Hmad
- Sté HAFIDI et Ayad de Travaux divers et négoce
- BAHOU Mohamed
- HARRONI My Brahim
- LAHRAOUI EL Hossaine
- Etablissement SIDI MGUILD
- Entreprise BOFAS-Travaux divers
- Entreprise FASKA Sarl
- Sté FADELI FRERES Sarl
- Sté SOPRIM (Sarl) Travaux DIVERS
- Sté SOPRIMAC (Sarl) Travaux divers
- Sté OULKHIR SOTRADICO Sarl
- Sté DERDOURI de Travaux divers
- Sté EL MOUDDAN Boujemaa
- Sté ARDOUZ TRAVAUX (sarl)
- Sté SUPERFLOR
- DOUIMI Mohamed
- Etablissement GLATRO
- KADRI Ahmed
- BERDIJ Mohamed
- Sté BERFOUR Sarl
- Sté FOREFIL Sarl
- Sté Agricole DAMS Sarl
- Sté SEDECO Sarl
- RGUIBI Mohamed
- EL MOUZAZI Noureddin
- KADIRI Jilali
- Sté AOURACH ACHARKK Sarl
- Sté Union travaux voie et Bâtiment (Sarl)
- Sté SCONEVS Sarl
- Sté COTRABER Sarl
- Sté BOUGEON VERT (Sarl)
- Sté ENGOR
- SOTRECA Sarl
- Les CHANTIERS DE DEBOU ET DE L'EST
- Sté Environnement ingénierie – Sarl
- Sté PERFECT DE TRAVAUX ET SERVICES
- Sté MATRADEF Sarl

TOTAL 121

ANNEX N.

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