Seed System Security Assessment
HAITI

ANNEXES

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ANNEX I

Field instruments: individual and community interview formats

Annex I A

SSSA HAITI. mai-juin 2010. Enquête d'agriculteur

*Nom de l'enquêteur*_____ *Son organisation*_____*Date*_____*Numéro de l' enquête*_____
Nom du chef de ménage _____ _____
*Nom de l'enquêté (personne qui connait les activités agricoles du ménage*_____
*Age*_____*Sexe H/F (encerclez) Relation de l'enquêté au chef de ménage*_____
*Commune*_____*Section communal* _____*Localité*_____

PARTIE 1: SOURCES DE SEMENCES ET ENGRAIS UTILISES AU COURS DE CETTE SAISON

Spécifiez le nom de cette saison _____et période de semi_____

1. Au cours de **cette saison**, quelles sont les trois cultures les plus importantes que vous cultivez (par rapport à la nourriture ou aux revenus, selon le point de vue de l'agriculteur) (Ex : canne à sucre, bananes, haricots, mais, pois congo, patates douces)

Culture 1	**Culture 2**	**Culture 3**

2. Au cours de **cette saison**, quelles sont les trois cultures pour lesquelles vous utilisez des semences ou des boutures ou des drageons? (Ex : haricots, mais, pois congo, patates douces, bananes)

Culture A	**Culture B**	**Culture C**

3. Pour chacune des cultures dans la question 2, nous voudrions savoir comment vous avez obtenu les semences **cette saison**, quelles variétés vous avez semées, les quantités semées, et votre impression des résultats ?

CULTURE A_____(*Note à l'enquêteur : Ecrivez le nom de la culture)*

Source de semences (voir codes)	**Mode d'acquisition (voir codes)**	**Nom de la variété**	**locale (L) améliorée (A) hybride (H)**	**Quantité de semences, boutures, ou drageons plantées (nbre)**	**Nom de l'unité locale**	**Superficie (en carreaux)**	**Est-ce que la variété a été plantée en association avec d'autres cultures ? 1=oui 2=non**	**Selon vous, quels seront les résultats ? 1= bons 2= passables 3= mauvais 4=ne sait pas**	**Est-ce que vous sèmeriez cette variété de nouveau (oui/non)**
Semences/boutures/drageons totales plantées de la Culture A									

Codes sources de semences
1=réserves (stocks)
2=vendeur dans une boutique d'intrants
3=vendeur au marché local
4=associations communautaires de producteurs de semences
5=famille/voisins/amis
6=ONG (spécifiez)_____
7=gouvernement
8=association inter-gouvernemental (par ex FA0)spécifiez____
9= autre (spécifiez)_____

Codes mode d'acquisition
a=achat
b=échange
c =don (de famille/voisin/amis)
d=coupons (associés ou non avec les foires)
e=distribution directe d'urgence
f=distribution direct de développement
g=l'aide alimentaire
h= crédit
J= réserves (stocks)
k=autre (spécifiez)_____

D'habitude, quelle quantité de semences, boutures out drageons de culture (A) plantez-vous ?	**Quantité totale plantée cette saison (*Enquêteur : vérifiez le total ci-dessus)***	**La quantité plantée cette saison, est-elle plus, moins, ou égale à la quantité plantée d'habitude 1=plus 2=moins 3=égale**	**Si la quantité a été différente, expliquez pourquoi**
	( )		

CULTURE B_____(*Note à l'enquêteur : Ecrivez le nom de la culture)*

Source de semences (voir codes)	Mode d'acquisition (voir codes)	Nom de la variété	locale (L) améliorée (A) hybride (H)	Quantité de semences, boutures, ou drageons plantées (nbre)	Nom de l'unité locale	Superficie (en carreaux)	Est-ce que la variété a été plantée en association avec d'autres cultures ? 1=oui 2=non	Selon vous, quels seront les résultats ? 1= bons 2= passables 3= mauvais 4=ne sait pas	Est-ce que vous sèmeriez cette variété de nouveau (oui/non)
`									
Semences/boutures/drageons totales plantées de la Culture A									

Codes sources de semences
1=réserves (stocks)
2=vendeur dans une boutique d'intrants
3=vendeur au marché local
4=associations communautaires de producteurs de semences
5=famille/voisins/amis
6=ONG (spécifiez le nom)_____
7=gouvernement
8=association inter-gouvernemental (par ex FA0) spécifiez_____
9= autre (spécifiez)_____

Codes mode d'acquisition
a=achat
b=échange
c =don (de famille/voisin/amis)
d=coupons (associés ou non avec les foires)
e=distribution directe d'urgence
f=distribution direct de développement
g=l'aide alimentaire
h= crédit
J= réserves (stocks)
K=autre (spécifiez)_____

D'habitude, quelle quantité de semences, boutures, ou drageons de culture (B) plantez-vous ?	Quantité totale plantée cette saison *(Enquêteur: vérifiez le total ci-dessus)*	La quantité plantée cette saison, est-elle plus, moins, ou égale à la quantité plantée d'habitude 1=plus 2=moins 3=égale	Si la quantité a été différente, expliquez pourquoi
	( )		

CULTURE C_____(*Note à l'enquêteur : Ecrivez le nom de la culture)*

Source de semences (voir codes)	Mode d'acquisition (voir codes)	Nom de la variété	locale (L) améliorée (A) hybride (H)	Quantité de semences, boutures, ou drageons plantées (nbre)	Nom de l'unité locale	Superficie (en carreaux)	Est-ce que la variété a été planté en association avec d'autres cultures ? 1=oui 2=non	Selon vous, quels seront les résultats ? 1= bons 2= passables 3= mauvais 4=ne sait pas	Est-ce que vous sèmeriez cette variété de nouveau (oui/non)
`									
Semences/boutures/drageons totales plantées de la Culture A									

Codes sources de semences

1=réserves (stocks)
2=vendeur dans une boutique d'intrants
3=vendeur au marché local
4=associations communautaires de producteurs de semences
5=famille/voisins/amis
6=ONG (spécifiez le nom)_____
7=gouvernement
8=association inter-gouvernemental (par ex FA0) spécifiez_____
9= autre (spécifiez)_____

Codes mode d'acquisition

a=achat
b=échange
c =don (de famille/voisin/amis)
d=coupons (associés ou non avec les foires)
e=distribution directe d'urgence
f=distribution direct de développement
g=l'aide alimentaire
h= crédit
J= réserves (stocks)
k= autre (spécifiez)_____

D'habitude, quelle quantité de semences, boutures, drageons de culture (C) plantez-vous ?	Quantité totale plantée cette saison *(Enquêteur : vérifiez le total ci-dessus)*	La quantité plantée cette saison, est-elle plus, moins, ou égale à la quantité plantée d'habitude 1=plus 2=moins 3=égale	Si la quantité a été différente, expliquez pourquoi
	( )		

Utilisation d'engrais

4. Avez-vous déjà utilisé de l'engrais ? oui/non (encerclez)

Si jamais, pourquoi ? _____

1= pas disponible
2=pas nécessaire pour moi
3= trop cher
4= je ne sais pas comment l'utiliser
5= je ne sais pas comment en profiter pas
6=sols trop mauvais
7 = autre (spécifiez)_____

Si oui, depuis combien d'années utilisez-vous de l'engrais? _____ années

5. Pendant les 5 dernières années, dans **les saisons importantes**, pour quelles cultures avez-vous utilisé de l'engrais/fumier?

Culture	Nbre saisons (engrais)	Nbre saisons (fumier)

6. Avez-vous utilisé de l'engrais pour vos cultures pendant **cette saison**? Oui/non (encerclez)
(Listez toutes les cultures pour lesquelles vous avez utilisé l'engrais)

Nom de la Culture	Superficie totale de cette culture	Proportion de la culture à laquelle vous avez utilisé de l'engrais (par ex : un tiers, un quart, la moitié, tout)	Spécifier le type d'engrais (par exemple complet, urée sulphate d'ammonium)	quantité utilisée (unité locale)	Nom de l'unité locale	source d'engrais (voir codes)

Codes sources de engrais

1=réserves (stocks)
2=vendeur dans une boutique d'intrants
3=vendeur au marché local
4=associations communautaires de producteurs de semences
5=famille/voisins/amis
6=ONG (spécifiez le nom)_____
7=gouvernement
8=association inter-gouvernemental (par ex FA0) spécifiez_____
9= autre (spécifiez)_____

7. Avez-vous utilisé du fumier/compost pour vos cultures pendant **cette saison** ? Oui/non (encerclez)

Culture	Superficie totale de cette culture (ci-dessus)	Proportion de la culture à laquelle vous avez utilisé de fumier (par ex : un tiers, un quart, la moitié, tout)	type de fumier/compost 1=cheval/paille 2=poulet/paille 3=bœuf/paille…..4=paille seulement 5=porc/paille 6=autre (spécifiez)_____ 7=résidus des champs	source de fumier/compost 1=propre 2=autre (spécifiez)_____

PARTIE II: SOURCES DE SEMENCES POUR LA PROCHAINE SAISON

8. Quelles seront les trois cultures les plus importantes que vous sèmerez au cours de **la prochaine saison principale** et ou obtiendrez-vous les semences ? (Baser sur les cultures pour lesquelles vous avez utilisé les semences, les boutures, ou drageons)

Spécifiez le nom de la prochaine saison principale _____ le mois qu'elle commence_____

Ecrivez le nom de la culture	Nom de la Variété	Local (L) Améliorée(A) Hybride (H)	Sources planifiées (voir codes)	Mode d'acquisition (voir codes)	Quantité de semences, boutures ou drageons (unité locale)	Nom de l'unité local
1						
	Semences/boutures/drageons totales plantées de la Culture 1					
2						
	Semences/boutures/drageons totales plantées de la Culture 2					
3						
	Semences/boutures/drageons totales plantées de la Culture 3					

Codes sources de semences
1=réserves (stocks)
2=vendeur dans une boutique d'intrants
3=vendeur au marché local
4=associations communautaires de producteurs de semences
5=famille/voisins/amis
6=ONG (spécifiez)_____
7=gouvernement
8=association inter-gouvernemental (par ex FA0)spécifiez____
9= autre (spécifiez)_____

Codes mode d'acquisition
a=achat
b=échange
c =don (de famille/voisin/amis)
d=coupons (associés ou non avec les foires)
e=distribution directe d'urgence
f=distribution direct de développement
g=l'aide alimentaire
h= crédit
J= réserves (stocks)
k=autre (spécifiez)_____

D'habitude, quelle quantité de semences, boutures, or drageons planteriez-vous?	Quantité totale que vous planterez *(Enquêteur : vérifiez le total ci-dessus)*	La quantité plantée cette saison, est-elle plus, moins, ou égale à la quantité plantée d'habitude 1=plus 2=moins 3=égale	Si la quantité a été différente, expliquez pourquoi
1	( )		
2			
3			

PARTIE III. ACCES ET UTILISATION DE NOUVELLES VARIETES

9. Pendant les 5 dernières années, est-ce-que vous avez obtenu de **nouvelles variétés** ?
Oui/Non (encerclez) *(Notez : si la réponse est non, passez a la question 10)*

Si oui, de qui, quelles cultures, quelles **variétés**, quand, et est-ce-que vous continuez à les semer ?

Source	Culture	Nom de la variété	Quand (année)	Toujours semée (oui/non)	Explication

Codes sources de semences

1= vendeur dans une boutique d'intrants
2= vendeur au marché local
3= associations communautaires de producteurs de semences
4= famille/voisins/amis
5=ONG-projet de développement (spécifiez)_____
6=gouvernement
7=association inter-gouvernemental (par ex FA0)spécifiez_____
8= autre (spécifiez)_____

10. Avez-vous réussi à obtenir les types de semences que vous souhaitiez planter cette saison (par ex : cultures, variétés, qualités)?

Si oui, commentez…..	Si non, spécifiez les types de semences que vous souhaiteriez planter mais que vous n'avez pas réussi à obtenir …et pourquoi vous n'avez pas réussi

PARTIE IV. LES EFFETS DU TREMBLEMENT DE TERRE SUR LA PRODUCTION AGRICOLE

11. Le tremblement de terre a-t-il affecté votre système de production agricole ? Oui/non (encerclez)
(*Enquêteur : Si oui, listez les changements importants ; si non, demander pourquoi pas ……)*

Oui : Listez les changements importants	Non : Pourquoi (*Enquêteur : sondez !*)

12. Comparer les aspects de votre système de production agricole depuis le tremblement de terre? S'il y eu des changements, est-ce ces changements ont étés causés par le tremblement ?

Changement	**Oui=1 Non=2**	**Détails (comparez la situation avant et après le tremblement)**	**Changement causé par le tremblement (oui/non)..si oui ou non, expliquez……**
La superficie totale cultivée pendant cette saison (Spécifiez la saison _____)		(Si oui) de _____à_____(superficie en carreaux) **(Si non) quelle est la superficie** _____	
Types de cultures semées		Les noms des cultures ajoutées_____ _____	
		Les noms des cultures abandonnées _____ _____	
La proportion de la superficie semée, par culture		Les noms des cultures pour lesquelles la proportion a augmentée _____ _____	
		Les noms des cultures pour lesquelles la proportion a diminuée _____ _____	
Quantité de semences que vous conservez (stockez)		Les noms des cultures pour lesquelles la quantité stockée a augmentée_____ _____	
		Les noms des cultures pour lesquelles la quantité stockée a diminuée_____ _____	
La main d'œuvre agricole que vous pouvez utiliser		Si oui, de _____à_____ (nbre de personnes travaillant aux champs)	
La quantité d'engrais, fumier ou d'autres intrants agricoles		Les noms des intrants pour lesquels la quantité utilisée a augmenté _____ _____	
		Les noms des Intrants pour lesquels la quantité utilisée a diminuée_____ _____	

REMARQUES:

13. Le tremblement de terre a-t-il affecté d'autres aspects de votre vie ?

Aspects	**Oui=1 Non=2**	**Détails de changement (comparez la situation avant et après le tremblement)**	**Changement causé par le tremblement (oui/non)..si o ou non, expliquez……..**
Le nombre de personnes qui habitent chez vous maintenant		Nbre de personnes avant_____après_____maintenant____	
La consommation alimentaire journalière du ménage (*Note à l'enquêteur : demandez a la femme qui prépare les repas*)		Le nbre de repas par jour est passé: de_____ à_____ Les quantités par repas sont-elles: plus petites/plus grandes/les mêmes (encerclez)	
Les types de nourriture que vous consommez (*Note à l'enquêteur : demandez à la femme qui prépare les repas*)		Consommez-vous les types de nourriture moins appréciés: oui/ non (encerclez) Consommez-vous plus/ moins/ le même nbre de types de nourriture (encerclez)	
Le nbre de personnes qui travaillent en dehors de la maison et de la ferme		Le nbre de personnes qui travaillent dehors est passé de_____ à _____	
Vente/achat de bétail		Nbre d'animaux achetées _____ vendus_____	
Vente/achat de biens agricoles (les houes, l'équipement, la charrue, les pioches)		Biens achetés (oui/non) encerclez et spécifiez_____ Biens vendus (oui/non) encerclez et spécifiez_____	
Vente/achat des ustensiles ou articles de ménage (chaises, bicyclettes, ustensiles de cuisine)		Articles achetés (oui/non) encerclez et spécifiez_____ Articles vendus (oui/non) encerclez et spécifiez_____	
L'argent que vous offrez aux autres de		Offrez(expliquez)_____ _____	
L'argent que vous recevez aux autres		Recevez(expliquez)_____ _____	
Accès au crédit		Augmenté /diminué____ (encerclez)	
Les activités que vous menez pour gagner de l'argent		Les noms des activités ajoutées _____	
		Les noms des activités abandonnées _____	

REMARQUES

PARTIE V: L'AIDE SEMENCIERE

14. Avez-vous reçu des semences des organisations ou d'agences depuis le tremblement de terre ?

Oui/non (encerclez)
Si oui, pour la saison qui a commencé (le mois)_____ (*Note à l'enquêteur : si non, passez à la question 17)*

15. Quelles semences avez-vous reçu et comment? (*Note à l'enquêteur : comparez les réponses contre celles de la partie I*)

Aide	Organisation/agence d'approvisionnement	Moyen d'approvisionnement (voir codes)	Nom de la culture	Nom de la variété	Quantité de semences ou de boutures reçus (unité locale)	Nom de l'unité locale
1						
2						
3						

Codes mode d'acquisition
1=achat
2=coupons d'urgence
3= distribution directe d'urgence
4= distribution direct de développement
5=autre (spécifiez)_____

16. L'aide semencière pourrait être utilisée de plusieurs manières, selon les besoins. Comment est-ce que vous avez utilisée la vôtre ?

Culture	Variété	Quantité reçu (unité locale)*	Utilisation (unité locale)						
			Semée	Mangée	Donnée	Echangée	Stockée	Vendue	Autre (spécifiez)

(* *Note à l'enquêteur : les chiffres devrait correspondre à ceux de la question # 15 ; aussi bien que le total des colonnes d'utilisation*)

17. Pendant ces 5 **dernières saisons principales**, combien de fois avez-vous reçu de **l'aide semencière d'urgence**? _____
(*Note à l'enquêteur : si la réponse est non, passez à la question 19)*

18. Est-ce-que vous avez déjà reçu de nouvelles **variétés** par le biais de **l'aide semencière d'urgence**? Oui/Non (encerclez)

Culture	Nom de la variété	Quand (année)	Toujours semée (oui/non)	Explication

19. Avez-vous d'autres remarques que vous voudriez partager avec nous concernant l'agriculture en général ou les semences en particulier ?

Annex I B

EVALUATION DU SYSTEME SEMENCIER, Haiti mai-juin 2010. Enquêtes communautaires (groupes cibles)

Nom de la localité_____ Date_____ Rapporteur_____ Int#_____

Département_____Arrondissement_____Commune_____ #Hommes_____#Femmes_____

Notez: Les questions suivantes servent pour guider la discussion. Ce qui est le plus important est de bien faciliter la discussion and de pouvoir en dégager un aperçu des stratégies des agriculteurs. L'information devrait être saisie sur les tableaux.

PARTIE I. VUE D'ENSEMBLE DES CULTURES SEMEES DANS LA COMMUNAUTE ET DES TENDANCES

I. Nous voudrions apprendre plus à propos des cultures principales semées dans votre communauté. Nous vous prions de classer ces cultures selon leur importance, d'abord en tenant compte de leur contribution à la nourriture et puis en se référant aux revenus. Employez: Haute importance (H) Moyenne importance (M) ou Faible importance (F). Incluez toutes les cultures semées dans cette communauté.

Culture	Importance de la contribution à la nourriture (H, M, ou F) et commentaires Et indiquez comment utilisez ou transformez	Importance de la contribution aux revenus (H, M, or F) et commentaires Et indiquez comment utilisez ou transformez

Indiquer les cultures les plus importantes pour la nourriture_____ _____

Indiquer les cultures les plus importantes pour le revenu _____

<u>Tendances</u>

Pendant la dernière décennie, quelles grandes tendances avez-vous remarquées dans les systèmes de productions agricoles de cette zone ?

2. Les proportions de la superficie semées dans ces cultures ont-elles changées ?

Cultures pour lesquelles la superficie a augmenté et pourquoi	Cultures pour lesquelles la superficie a diminué et pourquoi

3. Les variétés semées ont-elles changées (procéder par culture principale)

Pour les cultures principales, utilisez vous des variétés nouvelles et quand sont elles arrivées ? Certaines variétés ont-elles diminuées ou disparues ? Remplissez seulement s'il y avait des changements dans la culture.

Variétés nouvelles qui ont commencé à être utilisée dans les 10 dernières années et quand ?			Variétés pour lesquelles l'usage a diminué ou qui ont disparues au cours des dix dernières années et pourquoi ?	
Culture	Variété	Introduites quand ?	Culture	Variété

4. Pendant les derniers 5 ans, combien de saisons principales ont êtes bonnes, mauvaises et moyennes pour l'agriculture ?

# Bonne	# Moyenne (ni bonne, ni mauvaise)	# Mauvaise
Qu'est-ce qui caractérise une bonne saison (décrivez ses aspects)		Qu'est-ce qui caractérise une mauvaise saison (décrivez ses aspects)

PART II. STRATEGIES FOR ACCEDER AUX SEMENCES: CIRCUITS DE SEMENCES

5-7 Pour chacune des trois cultures principales, faites une carte qui démontre comment les agriculteurs accèdent aux semences et qui les approvisionne.

Illustrer ces échanges pour la dernière saison (spécifiez la saison)
Dessiner le circuit comme il serait apparu il y a 10 ans.
(Consultez la méthodologie complète sur la feuille ci-attachée.)
Sujets à aborder :

- Sources de semences
- Avantages et désavantages des différentes sources
- Qualité des semences des différentes sources
- Types de variétés des différentes sources
- Différences entre acteurs (femmes/homme, pauvres/riches)
- Disponibilité au niveau des différentes sources

PART III: EVALUATION PAR LA COMMUNAUTE DE LA SECURITE ET INSECURITE SEMENCIERE

La sécurité semencière veut dire qu'un ménage possède (dans ses stocks) ou a accès (par les moyens d'achat ou d'échange) aux semences dont il a besoin.

12. Dans cette communauté: Quelle proportion des ménages ont accès aux semences nécessaires pour la prochaine saison agricole (réserves personnelles, achat…). (Procédez culture par culture, en se référant aux trois cultures les plus importantes). Commencez en estimant les pourcentages de ménages qui sèment la culture, et puis estimez les pourcentages de ces ménages qui sont en situation de sécurité semencière.

Culture	**Pourcentage approximatif de ménages qui sèment la culture**	**Pourcentage approximatif de ceux qui sèment la culture qui sont en situation de sécurité semencière**	**Commentaires**

13. Avez-vous accès aux types de semences (qualité, variété) que vous souhaiteriez ? Expliquez

PART IV. INNOVATIONS

9. Y a-t-il des innovations dans le secteur agricole (de changements, d'interventions, d'introductions positives) que vous connaissez
actuellement dans cette communauté?

Exemples	**Oui/non**	**Expliquez**
Nouvelles variétés ?		
la production de semences par les associations ou coopératives d'agriculteurs ?		
L'établissement d'agro-entreprises? de nouveaux marchés ?		
De nouvelles organisations ou d'associations d'agriculteurs ?		
Nouvelles techniques ?		
D'autres?		

PART V. Les Effets du Tremblement de Terre et Les Réponses Communautaires
Quelles ont été les effets du tremblement de terre sur votre communauté ?

Quels ont été les effets sur l'agriculture ?

Effets négatifs du tremblement de terre?	**Effets positifs de tremblement de terre?** **(De nouvelles informations, du capital, du savoir-faire)?**

Effets sur les d'autres aspects de la vie rurale (stratégies de survie des ménages, aspects de l'organisation familiale)

Effets négatifs du tremblement de terre	**Effets positifs du tremblement de terre**

Quel % des ménages dans la communauté se sont élargis à cause du tremblement de terre_____

MERCI BEAUCOUP. AVEZ-VOUS DES QUESTIONS A NOUS POSER?

ANNEX II

Varieties recommended for use in Haiti (as of March 15, 2010)

Seeds	Scientific Name	Variety	Availability	Characteristics	Recommended Ecological area
Black Bean, haricot Noir (type Black Turtle Soup)	*Phaseolus vulgaris*	ICTA Ligero	Guatemala	Resistant to two viruses (BGYMV and BCMV), early, productive and rust tolerant. Susceptible to BCMNV.	Irrigated lowlands, planting season November & December
Black Bean, haricot Noir (type Black Turtle Soup)	*Phaseolus vulgaris*	DPC 40	Dominican Republic	Resistant to 3 viruses (BGYMV, BCMV and BCMNV), productive.	Irrigated lowland, fertile mountain areas.
Black Bean, haricot Noir (type Black Turtle Soup)	*Phaseolus vulgaris*	ICTA Tamazulapa	Guatemala	Resistant to BCMV, tolerant to BGYMV, productive. Susceptible to BCMNV.	Well adapted to Mountain areas and Irrigated lowlands
Black Bean, haricot Noir (type Black Turtle Soup)	*Phaseolus vulgaris*	Arroyo Loro Negro	Dominican Republic	Resistant to BCMV, susceptible to BGYMV and BCMNV. Late flowering, productive under ideal conditions.	Irrigated lowlands
Black Bean, haricot Noir (type Black Turtle Soup)	*Phaseolus vulgaris*	Arifi Wurite	Honduras, ACDI VOCA	Resistant to two viruses (BGYMV and BCMV), very productive and rust tolerant. Susceptible to BCMNV.	Irrigated lowlands, fertile mountain soils
Black Bean, haricot Noir (type Black Turtle Soup)	*Phaseolus vulgaris*	Local	Haiti	Susceptible to all 3 viruses, BGYMV, BCMV, BCMNV, well adpated to Haitian ecosystems	All Haitian bean producing ecosystems
Black Bean, haricot Noir (type Black Turtle Soup)	*Phaseolus vulgaris*	Rio Tibagi	Brazil	Resistant to BCMV, susceptible to BGYMV and BCMNV. Late flowering, productive under ideal conditions. Nice erect architecture	Irrigated lowlands, fertile mountain soils
Black Bean, haricot Noir (type Black Turtle Soup)	*Phaseolus vulgaris*	Diamante Negro	Brazil	Resistant to BCMV, susceptible to BGYMV and BCMNV. Productive under ideal conditions.	Irrigated lowlands, fertile mountain soils
Black Bean, haricot Noir (type Black Turtle Soup)	*Phaseolus vulgaris*	Brunca (BAT 304)	Costa Rica	Resistant to BCMV, tolerant to BGYMV, susceptible to BCMNV. Productive	Irrigated lowlands, tolerant to low soil fertility
Black Bean, haricot Noir (type Black Turtle Soup)	*Phaseolus vulgaris*	Negro Tacana (DOR 390)	Mexico	Resistant to two viruses (BGYMV and BCMV), early, productive and rust tolerant. Susceptible to BCMNV.	Irrigated lowlands, fertile mountain soils

Seeds	Scientific Name	Variety	Availability	Characteristics	Recommended Ecological area
Mottled Red Bean, Haricot Rouge	*Phaseolus vulgaris*	Buena Vista	Dominican Republic	Early, rust tolerant, susceptible to BGYMV and BCMNV. Resistant to BCMV, big seeded.	Irrigated lowlands, flat highlands.
Mottled Red Bean	*Phaseolus vulgaris*	PC 50	Dominican Republic	Early, rust tolerant, susceptible to BGYMV and BCMNV. Resistant to BCMV, medium seeded	Irrigated lowlands, flat highlands
Mottled Red Bean	*Phaseolus vulgaris*	Yacomelo ó Idiaf Yaconin	Dominican Republic	Early, rust tolerant, susceptible to BGYMV and BCMNV. Resistant to BCMV, mediun seeded.	Irrigated lowlands, flat highlands.

Seeds	Scientific Name	Variety	Availability	Characteristics	Recommended Ecological area
Cassava	*Manihot utilisssima*	CMC 40	Brazil, Colombia, Cuba	Sweet from 1 to 6 months, bitter afterwards	Dry Lowlands, flat highlands
Cassava	*Manihot utilisssima*	Maliyo	Aquin, Haiti	Local Sweet Cassava	Dry lowlands
Cassava	*Manihot utilisssima*	Mocana	Dominican Republic	Sweet Cassava	Dry lowlands
Cassava	*Manihot utilisssima*	Americanita	Dominican Republic	Bitter Cassava	Dry lowlands
Cassava	*Manihot utilisssima*	Yema de Huevo	Dominican Republic	Sweet Cassava	Dry lowlands
Cassava	*Manihot utilisssima*	Barahonera	Dominican Republic	Sweet Cassava	Dry lowlands
Cassava	*Manihot utilisssima*	INIVIT 45	Cuba	Sweet Cassava	Dry lowlands
Cassava	*Manihot utilisssima*	Trois Fourchons	jacmel, Haïti	Bitter Cassava	Dry lowlands

Seeds	Scientific Name	Variety	Availability	Characteristics	Recommended Ecological area
Sweet Potato, Patate Douce	*Ipomoea batatas*	Tapato	Haïti	Yellow fleshed, very sweet potato, high yielding	Rainfed lowlands and highlands
	Ipomoea batatas	Toguecita	Haïti	Yellow fleshed, very sweet potato, high yielding	Rainfed lowlands and highlands
	Ipomoea batatas	Ti Savien	Haïti	Purple fleshed sweet potato	Rainfed lowlands

Seeds	Scientific Name	Variety	Availability	Characteristics	Recommended Ecological area
Maize, Maïs	*Zea mays*	Chicken corn	Haïti	Early and Productive	Irrigated areas, rainfed lowlands and highlands
	Zea mays	Hugo QPM	Haïti	Productive and rich in lysine	Irrigated areas, rainfed lowlands and highlands
	Zea mays	Comayagua	Haïti	Productive	Irrigated areas, rainfed lowlands and highlands
	Zea mays	BR-106	Brazil	Highly productive	Irrigated areas, rainfed lowlands and highlands
	Zea mays	Frances Largo	Dominican Republic	Productive	Irrigated areas, rainfed lowlands and highlands
	Zea mays	CESDA 88	Dominican Republic	Productive	Irrigated areas, rainfed lowlands and highlands.

Seeds	Scientific Name	Variety	Availability	Characteristics	Recommended Ecological area
Pois Congo, Guandul	*Cajanus cajan*	IDIAF Primor	Dominican Republic	Photoperiod insensitive	Rainfed lowlands
	Cajanus cajan	IDIAF Navideno	Dominican Republic	Traditional landrace	Rainfed lowlands and mesas
	Cajanus cajan	Local	Haïti	Traditional landrace	Rainfed lowlands and mesas

Seeds	Scientific Name	Variety	Availability	Characteristics	Recommended Ecological area
Rice, Riz	*Oriza sativa*	Prosequisa 4	Dominican Republic	Productive, can be c ut after harvest and rattoons.	Irrigated perimeters
	Oriza sativa	Prosequisa 9	Dominican Republic	Productive	Irrigated perimeters
	Oriza sativa	Prosequisa 7	Dominican Republic	Productive	Irrigated perimeters
	Oriza sativa	Juma 57	Dominican Republic	Productive	Irrigated perimeters
	Oriza sativa	Juma 67	Dominican Republic	Productive	Irrigated perimeters
	Oriza sativa	TCS 10	Taiwan	Productive	Irrigated perimeters
	Oriza sativa	Tangara	EMBRAPA, Brazil	Rainfed rice	Wet mountains

Seeds	Scientific Name	Variety	Availability	Characteristics	Recommended Ecological area
Sorghum, sorgho	*Sorghum sp.*	Dodo 97	Haiti	Photoperiod insensitive	Dry lowlands
	Sorghum sp.	M 50009	Haiti	Photoperiod insensitive	Dry lowlands
	Sorghum sp.	Híbrido Pioneer 82G63	Dominican Republic	Photoperiod insensitive	Dry lowlands
	Sorghum sp.	Híbrido Pioneer 8282	Dominican Republic	Photoperiod insensitive	Dry lowlands
	Sorghum sp.	Híbrido Pioneer 85 y 40	Dominican Republic	Photoperiod insensitive	Dry lowlands
	Sorghum sp.	RCV	Operation Double Harvest, Haiti	Photoperiod insensitive	Dry lowlands
	Sorghum sp.	Sureño	Honduras, Escuela Agricola Panamericana	Photoperiod insensitive,	Dry lowlands, from 0 to 1000 meters.

Seeds	Scientific Name	Variety	Availability	Characteristics	Ecological area
Pois de Souche, Frijol de Lima, Butter Bean	*Phaseolus lunatus*	Beseba, local	Haiti	Photoperiod insensitive, very early, heat tolerant	Lowlands and highlands
Cowpea, Pois Inconnu, Black Eye beans	*Vigna unguiculata*	California Black Eye No 5	USA	Photoperiod insensitive, productive, heat tolerant	lowlands
	Vigna unguiculata	Local	Haiti	Aphid tolerant, heat tolerant	Lowlands
Cowpea, Black eye pea, Pois Inconnu	*Vigna unguiculata*	Anconi Cabeza Negra	Dominican Republic	Heat tolerant	Lowlands
Cowpea, Black eye Pea, Pois Inconnu	*Vigna unguiculata*	Mouride	Senegal	Late variety, productive	Lowlands

Vegetable Seeds	Scientific Name	Variety	Availability	Characteristics	Recommended Ecological area
Celery Apio	*Apium graveolens*	Tall Utah	Brasil		Cool irrigated lowlands and rainfed highlands
Pepper Morrón	*Capsicum annuum*	Pimiento all big	Brasil		Cool irrigated lowlands and rainfed highlands
Pepper, Poivron	*Capsicum annuum*	Yolo Wonder			Cool irrigated lowlands and rainfed highlands
Cilantro	*Coriandrum sativum*	Portugués Pacífico	Brasil		Cool irrigated lowlands and rainfed highlands
Cabbage, Choux	*Brassica oleracea*	RezisCrown, Tropicana	Japan, Mexico		Cool irrigated lowlands and rainfed highlands
Cabbage, Choux	*Brassica oleracea*	PX51096 hyb	Monsanto		Cool irrigated lowlands and rainfed highlands
Cabbage, Choux	*Brassica oleracea*	Uniao	Brasil		Cool irrigated lowlands and rainfed highlands
Cabbage, Choux	*Brassica oleracea*	Chato de Quintal	Brasil		Cool irrigated lowlands and rainfed highlands
Brocoli	*Brassica oleracea*	Pirate	Monsanto		Cool irrigated lowlands and rainfed highlands
Egg Plant	*Solanum melongena*	Embu	Brasil		Cool irrigated lowlands and rainfed highlands
Egg Plant	*Solanum melongena*	Black Beauty	USA (California)		Cool irrigated lowlands and rainfed highlands
Egg Plant	*Solanum melongena*	Ciça	Brasil		Cool irrigated lowlands and rainfed highlands
Egg Plant	*Solanum melongena*	Comprida roxa	Brasil		Cool irrigated lowlands and rainfed highlands
Lettuce	*Lactuca sativa*	Babá de verao	Brasil		Cool irrigated lowlands and rainfed highlands
Lettuce	*Lactuca sativa*	Tainá	Brasil		Cool irrigated lowlands and rainfed highlands
Lettuce	*Lactuca sativa*	Regina 579	Brasil		Cool irrigated lowlands and rainfed highlands

Vegetable Seeds	Scientific Name	Variety	Availability	Characteristics	Recommended Ecological area
Lettuce	*Lactuca sativa*	Great lakes	Brasil		Cool irrigated lowlands and rainfed highlands
Lettuce	*Lactuca sativa*	Alface Giovana	Brasil		Cool irrigated lowlands and rainfed highlands
Lettuce	*Lactuca sativa*	Alfase mauren	Brasil		Cool irrigated lowlands and rainfed highlands
Lettuce	*Lactuca sativa*	Maravilha quatro estaciones roxa manteca	Brasil		Cool irrigated lowlands and rainfed highlands
Tomato, Tomate	*Lycopersicon esculentum*	Roma VFN, Napoli, Chico 3, Floradade			Cool irrigated lowlands and rainfed highlands
Tomato, Tomate	*Lycopersicon esculentum*	Roma VF	Monsanto		Cool irrigated lowlands and rainfed highlands
Tomato, Tomate	*Lycopersicon esculentum*	Floradade	USA (California)		Cool irrigated lowlands and rainfed highlands
Tomato, Tomate	*Lycopersicon esculentum*	Napoli	USA (California)		Cool irrigated lowlands and rainfed highlands
Tomato, Tomate	*Lycopersicon esculentum*	Santa Clara			Cool irrigated lowlands and rainfed highlands
Tomato, Tomate	*Lycopersicon esculentum*	Santa Cruz Kada			Cool irrigated lowlands and rainfed highlands
Tomato, Tomate	*Lycopersicon esculentum*	Tospodoro			Cool irrigated lowlands and rainfed highlands
Onion	*Allium cepa*	Red creole chata roxa	Brasil		Cool irrigated lowlands and rainfed highlands
Onion	*Allium cepa*	Alfa-Tropical			Cool irrigated lowlands and rainfed highlands
Onion	*Allium cepa*	Conquista			Cool irrigated lowlands and rainfed highlands
Onion	*Allium cepa*	Ex 07552015	Monsanto		Cool irrigated lowlands and rainfed highlands

Vegetable Seeds	Scientific Name	Variety	Availability	Characteristics	Recommended Ecological area
Onion Hyb	*Allium cepa*	Mercedes	Monsanto		Cool irrigated lowlands and rainfed highlands
Carrot, Carotte	*Daucus carota*	Carandai	Monsanto		Cool irrigated lowlands and rainfed highlands
Carrot, Carotte	*Daucus carota*	Royal Chantenay, Chantenay Red Core,			Cool irrigated lowlands and rainfed highlands
Carrot, Carotte	*Daucus carota*	Joeun	Monsanto		Cool irrigated lowlands and rainfed highlands
Carrot, Carotte	*Daucus carota*	Brasília	Brasil		Cool irrigated lowlands and rainfed highlands
Carrot, Carotte	*Daucus carota*	Alvorada	Brasil		Cool irrigated lowlands and rainfed highlands
Okra/ molondrón	*Abelmoschus esculentus*	Clemson Spineless	Monsanto		Cool irrigated lowlands and rainfed highlands
Okra/ molondrón	*Abelmoschus esculentus*	Santa Cruz			Cool irrigated lowlands and rainfed highlands
Zucchini/ calabacín/ abóbora	*Cucurbita pepo*	Exposicao (Moranga)	Brasil		Cool irrigated lowlands and rainfed highlands
Zucchini/ calabacín/ abóbora	*Cucurbita pepo*	Menina Brasileira	Brasil		Cool irrigated lowlands and rainfed highlands
Zucchini/ calabacín/ abóbora	*Cucurbita pepo*	Menina Rajada	Brasil		Cool irrigated lowlands and rainfed highlands
Haricots/ Vainitas/ feijao-vagem	*Phaseolus vulgaris*	Macarrao	Brasil		Cool irrigated lowlands and rainfed highlands
Petis Pois/ ervilha/arveja	*Pisum sativum*	Axé	Brasil		Cool irrigated lowlands and rainfed highlands
Radish	*Raphanus sativus*	Crimson gigante	Brasil		Cool irrigated lowlands and rainfed highlands
Swiss Chard	*Beta vulgaris*	FordHook Giant			Cool irrigated lowlands and rainfed highlands
Spinach, Epinard	*Espinaca oleracea*	Nova Zelândia			Cool irrigated lowlands and rainfed highlands

Vegetable Seeds	Scientific Name	Variety	Availability	Characteristics	Recommended Ecological area
Spinach, Epinard	*Espinaca oleracea*	Melody Hybrid			Cool irrigated lowlands and rainfed highlands
Pepino	*Cucumis sativus*	Rubi (caipira)	Brasil		Cool irrigated lowlands and rainfed highlands
Watermelon	*Cucumis melo*	Grey Oblong Elonga	Monsanto		
Watermelon	*Cucumis melo*	Western Shipper Hyb	Monsanto		
Watermelon	*Cucumis melo*	Charleston Grey			Dry Lowlands

ANNEX III

SSSA FIELD RESULTS: SITE-SPECIFIC TABLES (N = 117)

This Annex presents the main findings across all 10 sites, with analytical tables in eight sections, which are numbered as follows.

Two seasons were closely followed as so to gauge immediate effects and resilience in farming seasons. The assessment labels them as first season post-earthquake and second season post earthquake, as the exact planting dates varied by region, crop, and farmer management strategy. Most commonly, 'first season' sowing fell in the period March to April, with 'second season sowing' starting in the months June, July, and August.

Each section has overview tables that display findings across all sites, grouped by theme (e.g. earthquake effects). In some sections, site-specific tables follow.

1. EFFECTS OF THE EARTHQUAKE ON HOUSEHOLDS

These tables show farmers' perceptions of how the earthquake affected key aspects of their household well-being: IDPs, food consumption, labor, livestock and other asset purchases and sales, and other economic and financial indicators such as access to credit.

1. Effects of earthquake on household size

Farmer perceptions of earthquake effects on household size

Effect	unit	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verettes	La Vallee de Jacmel	All sites
									plains	hills			
	n	110	102	107	61	72	100	100	85	45	100	101	983
Farmers citing change in number or persons living in household	%	82	58	66	62	53	29	59	51	62	31	71	57
All farmers citing change	n	90	59	71	38	38	29	59	43	28	31	72	558
Attributed to earthquake	n	14	7	11	21	9	2	16	31	19	7	37	174
Not attributed to earthquake	n	7	1	1	3	6	0	3	6	3	1	23	54
Did not explain	n	69	51	59	14	23	27	40	6	6	23	12	330
Persons before, all farmers	mean	7.91	6.15	6.96	5.79	6.00	6.66	6.51	6.09	5.83	6.10	5.79	6.44
Persons immediately after, all farmers	mean	11.67*	7.86*	9.96*	8.30*	7.97*	6.86	9.46*	6.79*	9.24*	7.10*	9.16*	8.68*
Persons in June 2010, all farmers	mean	9.44*	7.36*	8.09*	7.36*	6.84*	8.83	7.31*	6.07	5.98	6.62	6.53*	7.19*
Percentage change before and after, all farmers	mean	47.93	25.98	31.07	39.41	20.99	7.90	34.41	27.56	28.20	11.06	54.18	30.10
Percentage change before and after, all farmers listing changes	mean	58.59	43.73	45.74	62.84	42.60	26.34	58.32	54.48	55.18	35.33	75.24	53.21
Percentage change before and June 2010, all farmers	mean	18.35	20.35	7.67	28.70	10.00	0.46	7.49	3.73	-0.22	5.00	10.14	10.44
Percentage change before and June 2010, all farmers listing changes	mean	32.49	47.48	52.38	67.98	33.11	16.67	25.58	11.61	-0.62	27.52	24.48	31.50

** Difference relative to before the earthquake is statistically significant at <5%*

Note: For Leogane and Chantal, few farmers gave HH numbers for June, so mean figure may be affected by small sample size

As with labor effects, the means are calculated in two ways:

1) all farmers, which includes zeros, giving an indication of change across all HH

2) only for those HH noting change, to show mean change for those HH

2. Effects of earthquake on food consumption

Farmers' perceptions on earthquake effects on food consumption

Effect	unit	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verette	La Vallee de Jacmel	All sites
									plains	hills			
	n	110	102	107	61	72	100	100	85	45	100	101	983
Farmers citing fewer meals consumed since earthquake	%	68	46	43	52	56	57	48	42	20	34	44	48
All farmers citing fewer meals	n	75	47	46	32	40	57	48	36	9	34	44	468
Attributed to earthquake	n	13	3	6	18	5	9	12	15	5	17	16	119
Not attributed to earthquake	n	17	2	1	0	2	1	4	9	1	0	15	52
Did not explain fewer meals	n	45	42	39	14	33	47	32	12	3	17	13	297
Meals consumed before, farmers citing change	mean	2.48	2.48	2.42	2.53	2.44	2.55	2.54	2.63	2.50	2.53	2.20	2.48
Meals consumed after, farmers citing change	mean	1.49*	1.70*	1.53*	1.52*	1.90*	1.54*	1.40*	1.50*	1.17*	1.52*	1.93	1.59*
Farmers citing changes in quantities consumed per meal	%	21	10	13	20	21	18	14	11	2	7	30	16
All farmers citing changes in quantities	n	23	10	14	12	15	18	14	9	1	7	30	153
Attributed to earthquake	n	3	1	3	7	1	5	4	2	0	3	13	42
Not attributed to earthquake	n	3	1	0	0	1	0	1	2	0	0	11	19
Did not explain changes in quantities consumed	n	17	8	11	5	13	13	9	5	1	4	6	92
Increased quantities per meal, change attributed to earthquake	n	0	0	0	0	0	0	1	0	0	2	0	3
Decreased quantities per meal, change attributed to earthquake	n	1	0	2	5	0	0	2	1	0	0	0	12
Farmers citing changes in types of food consumed	%	75	55	57	54	53	62	49	35	40	43	16	50
All farmers citing changes in types of food	n	82	56	61	33	38	62	49	30	18	43	16	488
Attributed to earthquake	n	6	3	4	10	6	5	5	8	1	12	2	62
Not attributed to earthquake	n	14	3	0	5	1	0	0	2	1	2	9	37
Did not explain changes in types of food	n	62	50	57	18	31	57	44	20	16	29	5	389
Consumption of less preferred foods, change attributed to earthquake	n	0	0	0	0	0	0	0	0	0	2	0	3
Consumption of less fewer types of foods, change attributed to earthquake	n	1	0	2	2	0	0	1	0	0	2	0	8

** Difference relative to before the earthquake is statistically significant at <5%*

There were significant changes in numbers of meals consumed daily after the earthquake, as 48% of households claim they consume fewer meals. The average number of meals dropped from almost 2.5 per day to just over 1.5 per day – a drop of almost one full meal per day.

Almost half of the farmers indicated that they also eat less preferred foods since the earthquake, although few attributed this to the earthquake itself. Together, these data indicate increased stresses on already high food insecurity.

3. Effects of earthquake on off-farm labor

Farmers' perceptions of earthquake effects on number of household members working off-farm

Effect	unit	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verette	La Vallee de Jacmel	All sites
									plains	hills			
	n	110	102	107	61	72	100	100	85	45	100	101	983
Farmers citing changed number of household members working off-farm	%	27	12	21	3	6	18	7	8	4	12	10	13
All farmers citing change	n	30	12	22	2	4	18	7	7	2	12	10	126
Attributed to earthquake	n	0	1	0	0	0	5	1	4	0	3	1	15
Not attributed to earthquake	n	2	1	0	1	0	6	1	6	2	3	3	28
Did not explain changed number	n	28	11	22	1	4	12	6	1	0	6	7	98
Direction of change – off-farm labor													
Increased	n	18	4	18	1	2	9	3	3	1	5	3	67
Decreased	n	12	8	4	1	2	9	4	4	1	7	7	59
Off-farm workers before, farmers citing change	mean	2.77		2.23									2.09
Off-farm workers after, farmers citing changes	mean	3.10		4.00*									2.16*
Percentage change, all farmers	mean	9.61		19.03									3.84

** The difference between off-farm workers before and after is not statistically significant across all sites, or for Basssin Bleu, although it is for Chantal, using a pairwise comparison, <5% significance the percentage change is zero for farmers reporting no change and these are included.*

Notes: Data were not collected on off-farm labor for farmers not citing changes

Means not reported for counts less than 20

4. Effects of earthquake on livestock trade

Farmers' perceptions of earthquake effects on livestock sales and purchases

Effect	unit	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verette	La Vallee de Jacmel	All sites
									plains	hills			
	n	110	102	107	61	72	100	100	85	45	100	101	983
Farmers citing livestock sales and purchases since earthquake	%	48	44	22	23	31	21	19	26	20	29	12	27
All farmers citing purchases or sales	n	53	45	24	14	22	21	19	22	9	29	12	270
Attributed to earthquake	n	7	1	0	7	0	1	5	15	3	6	1	46
Not attributed to earthquake	n	4	2	0	1	0	0	1	4	2	7	7	28
Did not explain purchases and sales	n	42	42	24	6	22	20	13	3	4	16	4	196
Livestock purchased	n	22	29	13	3	10	9	1	6	1	8	2	104
Livestock sold	n	46	19	17	12	16	17	16	20	7	25	7	202
Livestock numbers purchased	mean	3.82	2.97										2.91
Livestock numbers sold	mean	3.53	3.60			1.88	3.53	3.63	4.05		3.04		3.30

Notes: Livestock include pigs, cattle, goats.

Counts for purchased and sold do not told to farmers citing purchases or sales because many farmers reported both sales and purchases , and some farmers reported no numbers.

Means are not reported for counts less than 20

There is a lively livestock trade, both in sales and purchases.

It is not clear whether sales are stress sales linked to the earthquake, or whether they are part of the normal trade season.

5. Effects of earthquake on household asset purchases and sales

Farmers' perceptions on earthquake effects on household asset purchases and sales

Effect	unit	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verette	La Vallee de Jacmel	All sites
									plains	hills			
	n	110	102	107	61	72	100	100	85	45	100	101	983
Farmers citing purchases or sales of farm equipment since earthquake	%	15	8	8	8	13	30	4	13	2	9	3	11
All farmers citing purchases or sales of equipment	n	17	8	9	5	9	30	4	11	1	9	3	106
Attributed to earthquake	n	2	0	0	0	0	2	2	2	1	5	3	17
Not attributed to earthquake	n	3	7	0	3	1	10	0	6	0	0	0	30
Did not explain purchases or sales of equipment	n	12	1	9	2	8	18	2	3	0	4	0	59
Equipment purchased	n	14	8	7	2	6	15	1	10	0	3	3	55
Equipment sold	n	3	0	0	0	0	0	2	1	0	0	0	6
Farmers citing purchases or sales of household goods since earthquake	%	2	2	9	3	14	18	2	13	9	6	2	7
All farmers citing purchases or sales of household goods	n	2	2	10	2	10	18	2	11	4	6	2	69
Attributed to earthquake	n	0	0	1	0	0	4	0	9	3	2	0	19
Not attributed to earthquake	n	1	0	0	0	0	4	0	2	0	0	2	42
Did not explain purchases or sales of household goods	n	1	2	9	2	10	10	2	0	1	4	0	41
Goods purchased	n	1	2	8	1	6	16	0	9	4	6	0	53
Goods sold	n	0	0	1	0	0	1	0	0	0	0	0	2

Note: Farm equipment are most often hoes, machetes, rakes, shovels. Household goods are most often kitchen utensils , pots, and dishes.

In some cases farmers both purchased and sold equipment or goods, and in others they did not report whether items were purchased or sold.

Only 11% purchased or sold farm equipment since the earthquake. This is not a dramatic signal of stress, especially as more was purchased than sold.

Similarly, only 7% purchased or sold household good since the earthquake, and the vast majority were purchases with very little attributed to the earthquake.

6. Effects of the earthquake on household finances – money offered and received

Farmers' perceptions of earthquake effects on money offered to and received from others –

Effect	unit	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verettes	La Vallee de Jacmel	All sites
									plains	hills			
	n	110	102	107	61	72	100	100	85	45	100	101	983
Farmers citing changes in money offered since earthquake	%	15	17	19	30	4	2	22	18	16	10	3	14
All farmers citing changes in money offered	n	17	17	20	18	3	2	22	15	7	10	3	134
Attributed to earthquake	n	1	0	0	1	0	0	0	4	0	2	1	9
Not attributed to earthquake	n	0	0	0	0	0	0	0	0	0	0	1	1
Did not explain	n	16	17	20	17	3	2	22	11	7	8	1	124
Farmers citing changes in money received since earthquake	%	2	5	18	5	28	15	3	18	7	1	2	9
All farmers citing changes in money received	n	2	5	19	3	20	15	3	15	3	1	2	88
Attributed to earthquake	n	0	2	11	1	5	0	2	9	3	0	0	33
Not attributed to earthquake	n	1	2	5	0	15	7	1	3	0	1	2	37
Did not explain	n	1	1	3	2	0	8	0	3	0	0	0	18

There were few changes in the amount of money that farmers offered to others or received from others since the earthquake. About a third of the 9% receiving more money since the earthquake attributed this change to the earthquake itself.

7. Effects of the earthquake on household finances – access to credit

Farmers' perceptions of changes in access to credit since the earthquake

Effect	unit	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verette	La Vallee de Jacmel	All sites
									plains	hills			
	n	110	102	107	61	72	100	100	85	45	100	101	983
Farmers citing changes in access to credit	%	16	16	36	26	19	16	8	13	4	16	3	16
All farmers citing changes in access to credit	n	18	16	38	16	14	16	8	11	2	16	3	158
Attributed to earthquake	n	0	1	0	2	0	1	1	6	1	1	0	13
Not attributed to earthquake	n	0	0	0	0	1	0	1	2	0	0	1	5
Did not explain	n	18	15	38	14	13	15	6	3	1	15	2	140
Increased credit	n	0	6	4	8	2	1	3	5	0	6	1	36
Decreased credit	n	18	10	21	4	11	15	4	6	2	9	1	101

Note: In some cases farmers did not report whether access to credit increased or decreased.

16% of farmers reported a change in access to credit, and the majority said they had decreased access to credit. This differs slightly based on gender of the household head. Focus groups and key informants indicated that some traders increased their credit because they needed to encourage sales, since economic stresses were constraining household purchases. Some traders indicated that they were more hesitant to offer credit, since they'd already lost quite a bit due to non-repayments after the earthquake, and they are trying to mitigate their risk.

8. Effects of the earthquake on household finances – income earning activities

Farmers' perceptions of changes in income-earning activities since the earthquake

Effect	unit	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verette	La Vallee de Jacmel	All sites
									plains	hills			
	n	110	102	107	61	72	100	100	85	45	100	101	983
Farmers citing added income-earning activities	%	8	6	22	5	7	20	12	15	4	26	3	13
All farmers added activities	n	9	6	24	3	5	20	12	13	2	26	3	123
Attributed to earthquake	n	1	1	0	0	1	5	0	5	0	2	3	18
Not attributed to earthquake	n	1	0	0	1	0	0	1	0	0	1	1	5
Did not explain	n	7	5	24	2	4	15	11	8	2	23	0	101
Farmers citing dropped income-earning activities	%	3	0	2	7	7	11	2	16	0	7	7	6
All farmers citing dropped activities	n	3	0	2	4	5	11	2	14	0	7	7	55
Attributed to earthquake	n	0	0	0	0	0	0	1	5	0	6	0	12
Not attributed to earthquake	n	0	0	0	0	0	1	1	2	0	0	1	5
Did not explain	n	2	0	2	3	4	10	0	7	0	2	5	35

About one-fifth of farmers added or dropped income-earning activities after January 12th (13% + 6%).

A substantial array of activities were added to household portfolios since the earthquake to improve the household economic situation (see tables below "income-earning activities added" and "income-earning activities dropped").

9. Income-earning activities added

Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verettes	La Vallee de Jacmel	All sites
							plains	hills			
charcoal herding masonry mechanic trade	charcoal trade	borlette coffin sales masonry plumbing restaurant telephone card sales	charcoal	charcoal trade	butcher clothing sales construction day laborer digging wells and latrines driving fishing masonry mechanic trade	driving trade wood/ charcoal	bread sales carpentry construction furniture sales herding masonry trade	clothing sales lottery sales	bread sales commerce sewing taxi motorcycle trade	salt sales trade	borlette bread sales butcher charcoal clothing sales coffin sales construction day laborer digging wells and latrines driving fishing furniture sales herding herding masonry motorcycle taxi plumbing salt sales sewing telephone card sales trade

10. Income-earning activities dropped

Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verette	La Vallee de Jacmel	All sites
							plains	hills			
sewing trade					masonry sales of cosmetics	gaguerre	car demolition rice and beans sales				sewing trade masonry sales of cosmetics car demolition rice and beans sales

2. EFFECTS OF THE EARTHQUAKE ON AGRICULTURAL SYSTEMS

These tables show farmers' perceptions of the effects of the earthquake on agricultural production and systems, across all sites. Only 41% of farmers noted that the earthquake had an impact on production systems; more farmers in Verettes, Leogane, and Bassin Bleu attributed changes in agriculture to the earthquake. This was based on an open question.

Further details on land, labor, and crop choices are based on follow-up questions that were more detailed.

10. Effects of earthquake on land

Farmers' perceptions of changes in land area since the earthquake

Effect	unit	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verette	La Vallee de Jacmel	All sites
									plains	hills			
	n	110	102	107	61	72	100	100	85	45	100	101	983
Farmers citing impact on agricultural production system	%	47	31	30	18	39	68	30	20	33	92	26	41
Farmers citing changed land area	%	26	20	17	21	50	38	16	9	13	14	7	21
All farmers citing changed area	n	29	20	18	13	36	38	16	8	6	14	7	205
Attributed to earthquake	n	4	1	2	2	12	33	11	4	3	12	0	84
Not attributed to earthquake	n	25	11	10	10	16	5	3	4	3	2	5	94
Did not explain	n	0	8	6	1	8	0	2	0	0	0	3	28
Direction of change													
Increased	n	4	0	6	2	2	11	1	3	0	2	4	35
Decreased	n	25	20	12	11	34	27	15	5	6	12	3	169
Area before, all farmers (karo)	mean	1.07*	0.81*	1.05	1.09*	1.05*	0.88	1.05	1.24	0.97	0.93	0.91	1.00
Area after, all farmers (karo)	mean	0.92	0.73	1.03	0.98	0.80	0.84	0.99	1.20	0.96	0.89	0.92	0.94
Percentage change, all farmers	mean	-8.86	-8.43	2.16	-2.60	-12.34	-0.90	-1.20	2.16	-3.47	-3.32	0.95	-3.13
Percentage change of those who changed land area	mean	-33.63	-43.02	12.84	-12.22	-24.69	-2.36	-7.49	22.93	-26.01	-23.69	13.57	-14.98

(*)statistical tests: paired t-tests comparing area before and after the eartquake indicate significant differences at 5% ore less using a one-tailed test

Changes in area varied in frequency and direction among sites, but these changes are only attributed to the earthquake in some places (Leogane, Marigot, Verette). Overall, much of the change in land area (94 of 205 observations) is not attributed to the earthquake. Overall percentage change is small (-3.13%).

Belle Anse, Bassin Bleu and Lascahobas show important changes affecting livelihoods of some farmers – but whether these can be attributed to the earthquake – as opposed to livelihood shifts, or to general poverty, is another matter. In Leogane, as would be expected, 33 of the 38 farmers citing change attributed these changes to the earthquake.

11. Effects of earthquake on crops

Farmers' perceptions of changes in crops grown since the earthquake

Effect	unit	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verette	La Vallee de Jacmel	All sites
									plains	hills			
	n	110	102	107	61	72	100	100	85	45	100	101	983
Farmers citing impact on agricultural production system	%	47.3	31.4	29.9	18.0	38.9	68.0	30.0	20.0	33.3	92.0	25.7	41.0
Farmers citing crops added	%	12.7	3.9	0.9	1.6	2.8	21.0	0.0	5.9	0.0	27.0	10.0	8.7
All farmers citing crops added	n	14	4	1	1	2	21	0	5	0	27	10	85
Attributed to earthquake	n	0	0	0	1	0	14	0	5	0	10	0	30
Not attributed to earthquake	n	5	1	0	0	0	3	0	0	0	11	8	28
Did not explain	n	9	3	1	0	2	4	0	0	0	6	2	27
Farmers citing crops dropped	%	10.0	na	4.7	6.6	16.7	16.0	1.0	5.9	2.2	22.0	1.0	7.9
All farmers citing crops dropped	n	11	0	5	4	12	16	1	5	1	22	1	78
Attributed to earthquake	n	1	0	0	0	0	10	0	2	0	10	0	23
Not attributed to earthquake	n	6	0	2	1	2	3	1	0	0	12	1	28
Did not explain	n	4	0	3	3	10	3	0	3	1	0	0	27
Farmers citing increased in crop land shares	%	19.1	3.9	11.2	9.8	23.6	21.0	7.0	8.2	2.2	32.0	16.0	14.7
All farmers citing changes	n	21	4	12	6	17	21	7	7	1	32	16	144
Attributed to earthquake	n	1	0	0	2	0	13	1	7	0	14	0	38
Not attributed to earthquake	n	7	0	7	0	8	4	3	0	0	16	8	53
Did not explain	n	13	4	5	5	9	4	3	0	1	2	8	54
Farmers citing decreased crop land shares	%	16.4	2.9	5.6	6.6	23.6	20.0	2.0	10.6	0.0	22.0	10.0	11.3
All farmers citing changes	n	18	3	6	4	17	20	2	9	0	22	10	111
Attributed to earthquake	n	1	0	0	0	0	17	1	5	0	7	0	31
Not attributed to earthquake	n	13	2	4	1	3	0	0	2	0	15	10	50
Did not explain	n	4	1	2	3	14	3	1	1	0	0	0	29

Note: Some farmers report both added and dropped crops, increased and decreased land shares

Few farmers reported adding (9%) or dropping (7%) any crops. More farmers show shifts in land shares for given crops, as 15% increased the land share of key crops, and 11% decreased land share.

Bassin Bleu, Lascahobas, Leogane, and Verettes report significant shifts in land shares of given crops. It is interesting to note that Leogane is quite dynamic.

12. Effects of earthquake on agricultural labor

Farmers' perceptions of changes in labor available for agriculture after the earthquake

Effect	unit	Bassin Bleu	Belle Anse	Chantal	Hinche	Lasca-hobas	Leogane	Marigot	Le Petit Goave		Verette	La Vallee de Jacmel	All sites
									plains	hills			
	n	110	102	107	61	72	100	100	85	45	100	101	983
Farmers citing impact on agricultural production system	%	47	31	30	18	39	68	30	20	33	92	26	41
Farmers citing changed labor availability	%	25	23	29	21	42	39	16	24	7	43	15	27
All farmers citing changed labor availability	n	28	23	31	13	30	39	16	20	3	43	15	261
Attributed to earthquake	n	2	0	1	0	1	25	2	7	1	11	2	52
Not attributed to earthquake	n	8	2	2	3	2	4	0	9	0	4	8	42
Did not explain changed labor availability	n	18	21	28	10	27	10	14	4	2	28	5	167
Direction of change													
Increased	n	2	3	26	2	6	17	4	3	1	29	5	98
Decreased	n	18	19	3	10	22	23	12	16	2	10	0	135
No explanation provided	n	8	1	2	1	2	2	0	1	0	4	10	31
Persons available before, farmers citing changes	mean	8.61*	10.17*	6.26*		8.13*	7.08		10.81*		7.02*	6.60	8.13*
Persons available after, farmers citing changes	mean	5.86	6.22	8.87		4.81	6.18		5.95		8.76	6.33	7.10
Percentage change, all farmers	mean	-9.99	-5.15	15.34		-15.14	10.22		-8.20		14.94	-1.28	-0.30

**Statistical tests: paired t-tests comparing labor availability before and after the earthquake indicate significant differences below 5%, using a one-tailed test*

Note: 'Labor' refers to both household and hired labor

Data were not collected on labor availability for farmers not citing changes

27% of farmers cite some change in labor availability. For the majority of sites, this change is negative, reflecting perhaps increased labor prices and people's inability to afford it. Chantal and Verettes are exceptions, as they indicate increases in available labor.

13. Effects of earthquake on input use

Farmers' perceptions of changes in input use since the earthquake

Effect	unit	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Le Petit Goave		Verette	La Vallee de Jacmel	All sites
									plains	hills			
	n	110	102	107	61	72	100	100	85	45	100	101	983
Farmers citing impact on agricultural production system	%	47	31	30	18	39	68	30	20	33	92	26	41
Farmers citing changed input use	%	2	1	11	5	11	27	1	5	2	63	11	14
All farmers citing changes	n	2	1	12	3	8	27	1	4	1	63	11	133
Attributed to earthquake	n	0	0	0	0	0	15	0	1	0	20	0	36
Not attributed to earthquake	n	0	0	0	0	0	0	0	0	0	0	0	0
Did not explain changed input use	n	2	1	12	3	8	12	1	3	1	43	11	97
Direction of changed input use													
Increased	n	0	1	11	0	3	23	1	4	1	62	10	116
Decreased	n	0	0	0	0	0	14	0	0	0	11	0	25

Note: In all sites, farmers cited fertilizer and compost for both increased and decreased use of inputs

Responses on direction of change do not total to changed input use numbers because 21 farmers reported increases in some inputs and decreases in others; other farmers provided no information.

Change in input use is modest, except for Léogâne and Verettes. Normally for these two zones, input use is fairly high; it significantly increased after the earthquake.

21 farmers reported an increase in some inputs and a decrease in others.

3. EARTHQUAKE EFFECTS ON AGRICULTURAL SYSTEMS AND HOUSEHOLDS BY SEX OF HOUSEHOLD HEAD, ALL SITES

This series of tables denotes farmer perceptions of the impacts of the earthquake on both agriculture and households, based on the sex of the head of household.

14. Effects of earthquake on land, by sex of household head

Farmer perceptions of effects of earthquake on land, by sex of household, all sites

Effect		Household head		Total
		Male	Female	
Sex of household head	n	**723**	**234**	**957**
Farmers citing impact on agricultural production system	n	287	104	391
	%	39.7	44.4	40.9
Farmers citing changed land area	n	150	48	198
All farmers citing changed area	%	20.7	20.5	20.7
Attributed to earthquake	%	38.8	47.9	41.9
Not attributed to earthquake	%	47.3	37.5	44.9
Did not explain	%	14.0	14.6	14.1
		100.1	100.0	101.0
Direction of change – land area				
Increased	%	2.6	6.4	3.6
Decreased	%	18.3	15.5	17.6
Area before, all farmers (karo)	mean	1.04	0.87	1.00*
Area after, all farmers (karo)	mean	0.95	0.85	0.93

Note: Sex of household head was not reported in all cases

** Difference in mean land area before earthquake is significant with t-test at <10% assuming equal variances and <5% assuming unequal variances, but no significant difference after earthquake*

While there are no significant differences in changes in land area for both female and male-headed households, female-headed households on average have smaller landholdings than male-headed households – 0.84 karo as opposed to 1.04 karo for male-headed households.

15. Effects on agricultural labor

Farmer perceptions of effects of earthquake on agricultural labor by sex of household, all sites

Effect		Household head		Total
		Male	Female	
Sex of household head	n	**723**	**234**	**957**
Farmers citing changed labor availability	%	26.8	26.9	26.9
All farmers citing changed labor availability	n	194	63	257
Attributed to earthquake	%	16.0	33.3	20.2**
Not attributed to earthquake	%	19.1	7.9	16.3**
Did not explain changed labor availability	%	64.9	58.7	63.4**
		100	100	100
Direction of change – labor availability				
Increased	%	8.9	12.8	9.8
Decreased	%	14.5	11.5	13.8
Person numbers not provided	%	3.5	2.6	3.2
Persons available before, farmers citing changes	mean	1.85	1.88	1.86
Persons available after, farmers citing changes	mean	1.91	1.87	1.90

Note: Sex of household head was not reported in all cases

Labor availability was not reported for farmers not citing changes

*** Chi-squared test indicates that distributions of male- and female-headed households are significantly different at <5% for attributing of changes in labor availability.*

Changes in labor availa.bility equally affected male and female-headed households, although male-headed households noted a more stark decrease in labor than female-headed households. Interestingly, female-headed households were almost twice as likely to attribute changes in labor availability to the earthquake (33.3%) than male-headed households (16.8%).

16. Effects on numbers of IDPs in households

Farmer perceptions of effects of earthquake on household size, by sex of household, all sites

Effect		Household head		Total
		Male	Female	
Sex of household head	n	**723**	**234**	**957**
Farmers citing change in number or persons living in household	%	57.4	62.0	58.5
All farmers citing change	n	415	145	560
Attributed to earthquake	%	30.6	26.2	29.5
Not attributed to earthquake	%	5.8	1.4	4.6
Did not explain	%	63.6	72.4	65.9
		100.0	100.0	100.0
Persons before, all farmers	mean	6.45	6.29	6.41
Persons after, all farmers	mean	8.68	8.48	8.63
Persons in June 2010, all farmers	mean	7.34	6.63	7.18*

** Difference in mean persons per hh in June 2010 is significant with t-test at <10% assuming equal variances and <5% assuming unequal variances, but no significant difference before or immediately after earthquake*

Household sizes were about the same on average before the earthquake, and increased equally significantly immediately following the earthquake. IDPs in female-headed households have been quicker to return to Port-au-Prince or to leave for another location than IDPs in male-headed households.

17. Effects on household economics and finances

Farmer perceptions of effects of earthquake on household economy, by sex of household, all sites

Effect		Household head		Total
		Male	Female	
Sex of household head	n	**723**	**234**	**957**
Farmers citing livestock sales and purchases since earthquake	%	27.2	28.6	27.6
All farmers citing purchases or sales	n	197	67	264
Attributed to earthquake	%	17.8	16.4	17.4
Not attributed to earthquake	%	10.2	10.4	10.2
Did not explain purchases and sales	%	72.1	73.1	72.3
		100.0	100.0	100.0
Direction of change – livestock				
Livestock purchased	%	10.0	12.0	10.4
Livestock sold	%	21.1	20.1	20.8
Livestock numbers purchased	mean	3.22	2.79	3.10
Livestock numbers sold	mean	3.28	3.49	3.33
Farmers citing changes in access to credit	%	15.2	18.8	16.1
All farmers citing changes in access to credit	n	110	44	154
Attributed to earthquake	%	6.36	13.6	8.44*
Not attributed to earthquake	%	4.55	0.00	3.25*
Did not explain	%	89.1	86.4	88.3*
	%	100.0	100.0	100.0
Direction of change – access to credit				
Increased credit	%	3.7	3.5	3.6
Decreased credit	%	9.9	12.8	10.6
Farmers citing changes in money offered since earthquake	%	14.4	11.1	13.6
All farmers citing changes in money offered	n	104	26	130
Attributed to earthquake	%	6.73	7.69	6.92
Not attributed to earthquake	%	0.96	0.00	0.77
Did not explain	%	92.3	92.3	92.3
		100.0	100.0	100.0
Farmers citing changes in money received since earthquake	%	8.44	10.7	9.0
All farmers citing changes in money received	n	61	25	86
Attributed to earthquake	%	42.6	24.0	37.2*
Not attributed to earthquake	%	45.9	36.0	43.0*
Did not explain	%	11.5	40.0	19.8*
		100.0	100.0	100.0

** Chi-squared test indicates that the distributions of male- and female-headed households do not differ significantly for farmers citing changes in credit or money received, but do for for attribution of change in credit or money received (<5%)*

Notes: Many farmers reported both sales and purchases, and some farmers reported no numbers.

In some cases farmers did not report whether access to credit increased or decreased.

There are no significant differences in livestock sales or purchases for female-headed households and male-headed households, indicating that this is "gender-neutral" as a coping strategy.

Female-headed households were more likely to be affected by decreases in access to credit than male-headed households – and they were much more likely to attribute this change to the earthquake. This corroborates focus group discussions wherein women described a credit crunch that contributed to forcing them to drop some of their economic activities.

By contrast, while male and female-headed households offered and received more money post-earthquake, female-headed households were less likely to attribute this to the earthquake. This could indicate that such trade is part of their normal commercial activities.

18. Effects on household food security

Farmer perceptions of effects of earthquake on household, by sex of household, all sites

Effect		Household head		Total
		Male	Female	
Sex of household head	n	**723**	**234**	**957**
Farmers citing changes in meal consumption since earthquake	%	46.5	51.7	47.8
All farmers citing change in food consumption since earthquake	n	336	121	457
Attributed to earthquake	%	27.7	18.2	25.2*
Not attributed to earthquake	%	12.2	8.3	11.2*
Did not explain change in meals	%	60.1	73.6	63.7*
Meals consumed before, farmers citing change	mean	2.51	2.40	2.48
Meals consumed after, farmers citing change	mean	1.63	1.46	1.59

** Chi-squared test indicates that the distributions of male- and female-headed households do not differ significantly for farmers citing changes in meals, but do (at <5% significance), for attribution of changes*

Since January 12th, 47.8% of all households reduced the number of meals consumed per day, at some point. Much fewer female-headed households (18.2%) attributed this change in household meal consumption to the earthquake than male-headed households (27.7%).

This could mean a number of things: it might indicate that women, who are responsible for meal preparation, do not consider their reduction of economic means to be an outcome of the earthquake. It could mean that meal reduction is part of a natural cycle of a hungry season, as in some areas the earthquake occurred mid-way through the growing season, before any harvests.

19. Effects on labor

Farmer perceptions of effects of earthquake on off-farm labor by sex of household, all sites

Effect		Household head		Total
		Male	Female	
Sex of household head	n	**723**	**234**	957
Farmers citing changed number of household members working off-farm	%	11.3	17.5	12.9
All farmers citing change	n	82.0	41.0	123.0
Attributed to earthquake	%	12.2	12.2	12.2
Not attributed to earthquake	%	12.2	4.9	9.8
Did not explain changed number	%	75.6	82.9	78.0
	%	100.0	100.0	100.0
Direction of change – number of household members working off-farm				
Increased	%	5.67	9.83	6.69
Decreased	%	5.39	6.84	5.75
Off-farm workers before, farmers citing change	mean	2.22	1.90	2.11
Off-farm workers after, farmers citing change	mean	2.13	2.26	2.17

Note: Data were not collected on off-farm labor for farmers not citing changes

Difference in means is not statistically significant between male and female-headed households for off-farm workers before or after the earthquake

Female-headed households indicate slightly more people working off-farm than in male-headed households. This probably indicates a coping response to a stress situation wherein households require more cash.

This indicates that there has been a slight increase in people working off-farm, yet households also report a dearth of available labor (see table “effects on agricultural labor”) in general.

4. SEED VOLUMES BY SOURCE, THIS SEASON AND NEXT SEASON

This set of tables represents only crops whose units could be fairly consistently converted to kilograms – marmites, pots, etc. Regimes of bananas, or cuttings of sweet potato and cassava are not included here, since units were too unwieldy and difficult to standardize. These tables provide the overall quantities of seed used this past season, and the plans for the upcoming season, as well as percentage distribution of the sources of this seed.

Some observations over all sites:

- Beans by far the crop produced in greatest quantity, and the majority is sourced from the local market
- Farmers source large quantities of maize and sorghum seed from their own stocks
- Rice is the only crop where there is significant sourcing from family or friends
- Many more peanuts will be stocked for next season than this season. Lascahobas is the only site where there are significant quantities of peanut seed sourced from own stocks.
- Much less seed aid is expected for next season
- In the absence of seed aid next season, farmers intend to stock more maize seed than this season, and purchase more bean seed. Overall they will plant about half as much maize seed this coming season, which could be an indication of the staggered planting season of maize, which many farmers described. Overall bean quantities remain similar, although there is a slight decrease for the coming season.
- Generally when seed aid is given, farmers buy less seed from the market. So seed aid helps farmers save money. (Is this the most cost-effective way to get money to farmers or to increase their purchasing power??? Is this the least risky method of 'cash transfer')

20. All sites, this season

Quantities of seed farmers used this season, by source and crop (%), all sites

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	8497.4	26.5	2.2	63.0	0.0	2.3	6.0	100.0
Beans	19780.9	9.9	0.7	83.1	0.4	0.5	5.5	100.0
Rice	3883.8	13.3	6.2	66.4	2.8	10.8	0.5	100.0
Sorghum	1155.3	53.5	0.2	45.7	0.0	0.5	0.0	100.0
Peanut	4700.0	26.6	0.0	72.8	0.0	0.0	0.6	100.0
Pigeonpea	1406.4	36.6	0.6	61.8	0.0	0.7	0.3	100.0
Cowpea	644.2	7.5	0.6	86.8	0.0	1.9	3.2	100.0
All above crops	**40068.0**	**17.8**	**1.5**	**74.2**	**0.5**	**1.9**	**4.2**	**100.0**

n of seed sources = 3583, includes 3 priority crops per household

21. All sites, next season

Quantities of seed farmers used next season, by source and crop (%), all sites

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	6307.0	25.4	1.5	67.0	0.9	1.6	3.6	100.0
Beans	18202.9	17.0	1.2	78.5	0.0	1.3	2.0	100.0
Rice	3871.3	17.4	3.4	66.1	0.0	9.0	4.1	100.0
Sorghum	1122.2	35.2	2.5	51.7	1.8	4.0	4.9	100.0
Peanut	4153.4	40.2	2.1	54.3	2.5	0.2	0.6	100.0
Pigeonpea	697.1	12.4	0.0	78.1	1.1	4.1	4.3	100.0
Cowpea	295.0	9.7	5.1	68.2	13.6	0.0	3.4	100.0
All above crops	**34648.8**	**21.8**	**1.6**	**71.1**	**0.7**	**2.2**	**2.5**	**100.0**

n of seed sources = 2975, includes 3 priority crops per household

22. Bassin Bleu, this season

Quantities of seed farmers used this season, by source and crop (%), Bassin Bleu

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	723.1	4.1	0.0	95.9	0.0	0.0	0.0	100.0
Beans	958.9	0.8	0.0	99.2	0.0	0.0	0.0	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Peanut	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Pigeonpea	332.9	40.6	0.0	59.4	0.0	0.0	0.0	100.0
Cowpea	139.5	0.0	0.0	100.0	0.0	0.0	0.0	100.0
All above crops	**2154.4**	**8.0**	**0.0**	**92.0**	**0.0**	**0.0**	**0.0**	**100.0**

n of seed sources = 405, includes 3 priority crops per household

23. Bassin Bleu, next season

Quantities of seed farmers will use next season, by source and crop (%), Bassin Bleu

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	854.8	1.0	0.3	97.2	0.0	1.5	0.0	100.0
Beans	2632.3	0.1	0.2	99.7	0.0	0.0	0.0	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Peanut	49.6	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Pigeonpea	149.1	1.7	0.0	79.9	0.0	18.4	0.0	100.0
Cowpea	25.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0
All above crops	**3710.9**	**0.4**	**0.2**	**98.3**	**0.0**	**1.1**	**0.0**	**100.0**

n of seed sources = 424, includes up to 3 crops per household

Bassin Bleu relies heavily on the local market for seed. Last season, there were small amounts of pigeonpea and maize seed that was sourced from reserves, but virtually all seed was purchased at the market this season, and the trend continues next season. The low reliance on own stocks in Bassin Bleu may be drought-related, and is worth further study.

24. Belle Anse, this season

Quantities of seed farmers used this season, by source and crop (%), Belle Anse

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	1091.3	19.8	0.0	75.9	0.0	0.0	4.3	100.0
Beans	1516.3	3.3	0.0	93.2	0.0	0.0	3.5	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	231.9	33.2	0.0	66.8	0.0	0.0	0.0	100.0
Peanut	697.5	1.8	0.0	98.2	0.0	0.0	0.0	100.0
Pigeonpea	53.1	16.5	0.0	83.5	0.0	0.0	0.0	100.0
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	**3590.0**	**10.1**	**0.0**	**87.0**	**0.0**	**0.0**	**2.8**	**100.0**

n of seed sources=321, includes 3 priority crops per household

Peanuts are grown, and the vast majority of seed is purchased. There has been some bean and maize aid this season. Not much bean seed was sourced from own reserves.

25. Belle Anse, next season

Quantities of seed farmers will use next season, by source and crop (%), Belle Anse

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	1018.1	25.2	0.0	62.2	0.0	0.0	12.6	100.0
Beans	1481.9	6.5	0.0	85.4	0.0	0.0	8.1	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	58.8	23.4	0.0	68.1	0.0	0.0	8.5	100.0
Peanut	322.5	3.9	0.0	96.1	0.0	0.0	0.0	100.0
Pigeonpea	17.5	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	**2898.8**	**13.1**	**0.0**	**78.2**	**0.0**	**0.0**	**8.8**	**100.0**

n of seed sources=302, includes up to 3 crops per household

The increase in maize seed aid corresponds with a proportionally equal decrease in market maize. Seed aid helps farmers save money.

26. Chantal, this season

Quantities of seed farmers used this season, by source and crop (%), Chantal

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	1356.3	10.0	6.2	78.5	0.0	1.8	3.5	100.0
Beans	2598.3	0.5	4.0	94.0	0.0	0.0	1.5	100.0
Rice	310.0	0.0	0.0	86.3	13.7	0.0	0.0	100.0
Sorghum	31.3	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Peanut	167.5	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Pigeonpea	233.8	38.5	3.2	58.3	0.0	0.0	0.0	100.0
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	**4697.0**	**5.1**	**4.2**	**87.5**	**0.9**	**0.5**	**1.9**	**100.0**

n of seed sources=371, includes 3 priority crops per household

27. Chantal, next season

Quantities of seed farmers will use next season, by source and crop (%), Chantal

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	1003.8	19.7	0.0	79.3	0.0	1.0	0.0	100.0
Beans	1885.0	2.0	1.7	95.0	0.0	0.0	1.3	100.0
Rice	573.8	27.5	5.2	32.5	0.0	7.0	27.9	100.0
Sorghum	163.8	0.0	12.2	87.8	0.0	0.0	0.0	100.0
Peanut	42.5	0.0	29.4	70.6	0.0	0.0	0.0	100.0
Pigeonpea	123.8	14.1	0.0	85.9	0.0	0.0	0.0	100.0
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	**3792.5**	**10.8**	**2.5**	**80.5**	**0.0**	**1.3**	**4.9**	**100.0**

n of seed sources=298, includes up to 3 crops per household

Farmers are anticipating purchasing more bean seed for the next season, and less rice seed. This corresponds with an anticipation of less bean seed aid, and significantly more rice seed aid.

28. Hinche, this season

Quantities of seed farmers used this season, by source and crop (%), Hinche

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	581.8	30.1	0.9	59.2	0.0	0.0	9.9	100.0
Beans	35.0	14.3	0.0	85.7	0.0	0.0	0.0	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	137.3	38.2	0.0	61.8	0.0	0.0	0.0	100.0
Peanut	395.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Pigeonpea	206.1	19.9	0.0	80.1	0.0	0.0	0.0	100.0
Cowpea	241.9	8.8	0.0	91.2	0.0	0.0	0.0	100.0
All above crops	**1597.1**	**18.5**	**0.3**	**77.6**	**0.0**	**0.0**	**3.6**	**100.0**

n of seed sources=192 includes 3 priority crops per household

Peanuts are somewhat significant this season, and 100% are purchased on the open market.

29. Hinche, next season

Quantities of seed farmers next season, by source and crop (%), Hinche

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	
Maize	310.0	4.0	0.0	57.3	17.7	0.0	21.0	100.0
Beans	7.5	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	112.5	0.0	0.0	0.0	0.0	0.0	0.0	na
Peanut	783.8	2.2	0.0	84.8	8.6	1.1	3.2	100.0
Pigeonpea	167.5	0.0	0.0	77.6	4.5	0.0	17.9	100.0
Cowpea	121.3	10.3	0.0	54.6	33.0	0.0	2.1	100.0
All above crops	**1502.5**	**3.0**	**0.0**	**74.1**	**12.6**	**0.6**	**9.7**	**100.0**

n of seed sources=166, includes up to 3 crops per household

30. Lascahobas, this season

Quantities of seed farmers used this season, by source and crop (%), Lascahobas

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	431.9	30.7	0.0	62.1	0.0	2.0	5.2	100.0
Beans	1823.8	23.4	0.0	65.3	0.0	1.1	10.3	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	3.8	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Peanut	2527.5	44.5	0.0	54.3	0.0	0.0	1.2	100.0
Pigeonpea	74.8	30.1	0.0	66.6	0.0	3.3	0.0	100.0
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	**4861.7**	**35.2**	**0.0**	**59.2**	**0.0**	**0.6**	**4.9**	**100.0**

n of seed sources=257, includes 3 priority crops per household

31. Lascahobas, next season

Quantities of seed farmers will use next season, by source and crop (%), Lascahobas

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	218.8	22.3	21.7	56.0	0.0	0.0	0.0	100.0
Beans	1742.5	42.9	7.9	43.5	0.0	0.0	5.7	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	57.5	91.3	0.0	8.7	0.0	0.0	0.0	100.0
Peanut	2875.0	57.0	2.6	39.0	1.3	0.0	0.0	100.0
Pigeonpea	68.8	38.2	0.0	61.8	0.0	0.0	0.0	100.0
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	**4962.5**	**50.7**	**5.2**	**41.3**	**0.8**	**0.0**	**2.0**	**100.0**

n of seed sources=175, includes up to 3 crops per household

There is some anticipation of purchasing maize seed at an input store. Interestingly, the majority of peanut seed – which is a large quantity – is sourced from own reserves. Are there lessons from this area that can be traded with other areas that purchase peanuts every year?

32. Léogâne, this season

Quantities of seed farmers used this season, by source and crop (%), Léogâne

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	924.88	2.57	5.01	85.23	0.00	3.54	3.65	100.00
Beans	2505.00	3.29	1.00	91.02	0.00	1.20	3.49	100.00
Rice	0.00	0.00	0.00	0.00	0.00	0.00	0.00	na
Sorghum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	na
Peanut	250.00	15.00	0.00	85.00	0.00	0.00	0.00	100.00
Pigeonpea	80.20	42.86	0.00	56.11	0.00	1.03	0.00	100.00
Cowpea	144.38	8.23	2.60	73.59	0.00	8.66	6.93	100.00
All above crops	**3904.45**	**4.87**	**1.92**	**87.90**	**0.00**	**1.95**	**3.36**	**100.00**

n of seed sources=421, includes 3 priority crops per household
Only crops for which planting material can be converted to kgs are included

33. Léogâne, next season

Quantities of seed farmers will use next season, by source and crop (%),Léogâne

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	943.1	4.1	1.9	90.2	0.0	3.6	0.3	100.0
Beans	1542.5	8.1	1.1	87.4	0.0	0.4	2.9	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	7.5	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Peanut	21.3	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Pigeonpea	17.5	42.9	0.0	57.1	0.0	0.0	0.0	100.0
Cowpea	46.3	0.0	32.4	67.6	0.0	0.0	0.0	100.0
All above crops	**2578.1**	**6.9**	**1.9**	**87.7**	**0.0**	**1.6**	**1.8**	100.0

n of seed sources=356, includes up to 3 crops per household

Farmers intend to source approximately the same proportion of bean seed from stocks as from markets from this season to next season.

34. Marigot, this season

Quantities of seed farmers used this season, by source and crop (%), Marigot

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	688.9	25.8	0.0	62.8	0.0	0.0	11.5	100.0
Beans	2618.8	10.9	0.0	78.9	0.0	2.1	8.1	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	65.0	15.4	0.0	84.6	0.0	0.0	0.0	100.0
Peanut	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Pigeonpea	63.8	66.7	0.0	33.3	0.0	0.0	0.0	100.0
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	3436.4	15.0	0.0	74.9	0.0	1.6	8.5	**100.0**

n of seed sources=340, includes 3 priority crops per household

35. Marigot, next season

Quantities of seed farmers will use next season, by source and crop (%), Marigot

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	476.1	29.1	0.0	70.9	0.0	0.0	0.0	100.0
Beans	2376.3	15.9	0.8	74.3	0.0	8.9	0.0	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Peanut	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Pigeonpea	8.9	56.0	0.0	44.0	0.0	0.0	0.0	100.0
Cowpea	3.8	0.0	0.0	100.0	0.0	0.0	0.0	100.0
All above crops	**2865.0**	**18.2**	**0.7**	**73.6**	**0.0**	**7.4**	**0.0**	**100.0**

n of seed sources=310, includes up to 3 crops per household

Even though farmers received significant maize and bean seed aid for this season, they're not anticipating any more. They have an established history of emergency aid. It's interesting that more farmers seem to compensate for the lack of seed aid by planning on storing more of their own reserves; some – but fewer – plan on purchasing additional seed next season to make up the deficit.

Pigeonpea is more equally sourced from own reserves as from markets.

36. Petit Goave (plains), this season

Quantities of seed farmers used this season, by source and crop (%), Le Petit Goave (plains)

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	798.9	47.6	2.5	27.0	0.0	6.9	16.0	100.0
Beans	5.2	48.3	0.0	6.9	0.0	0.0	44.8	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	242.3	63.9	1.0	32.5	0.0	2.6	0.0	100.0
Peanut	5.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Pigeonpea	216.0	35.8	0.0	59.4	0.0	3.1	1.7	100.0
Cowpea	118.4	12.9	0.0	78.1	0.0	0.0	9.0	100.0
All above crops	**1385.8**	**45.5**	**1.6**	**37.6**	**0.0**	**4.9**	**10.4**	**100.0**

n of seed sources=301 includes 3 priority crops per household

37. Petit Goave (plains), next season

Quantities of seed farmers will use next season, by source and crop (%), Le Petit Goave (plains)

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	446.4	61.3	0.0	24.4	0.0	9.0	5.4	100.0
Beans	5.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Rice	17.5	0.0	0.0	0.0	0.0	100.0	0.0	100.0
Sorghum	640.9	46.6	1.2	40.9	0.0	7.0	4.3	100.0
Peanut	5.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Pigeonpea	77.8	30.5	0.0	67.9	0.0	1.6	0.0	100.0
Cowpea	98.8	16.5	0.0	75.9	0.0	0.0	7.6	100.0
All above crops	**1291.4**	**47.4**	**0.6**	**39.4**	**0.0**	**8.0**	**4.6**	**100.0**

n of seed sources=213, includes up to 3 crops per household

There is quite a bit of seed aid for this season for maize. (Field visits and interviews showed no direct of the effects of the earthquake on agriculture. Emergency aid was given regardless.)

Significantly less seed aid is anticipated for next season. For the most part, farmers anticipate on making up for this difference of maize seed by saving their own seed for next season, and filling the bean seed food aid gap by purchasing beans at the local market.

38. Petit Goave (hills), this season

Quantities of seed farmers used this season, by source and crop (%), Le Petit Goave (hills)

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	390.0	67.0	0.0	22.1	0.0	3.8	7.1	100.0
Beans	2558.6	6.0	0.0	84.5	0.0	0.0	9.5	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	45.0	16.7	0.0	83.3	0.0	0.0	0.0	100.0
Peanut	657.5	11.4	0.0	88.6	0.0	0.0	0.0	100.0
Pigeonpea	26.6	51.0	0.0	49.0	0.0	0.0	0.0	100.0
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	**3677.7**	**13.9**	**0.0**	**78.4**	**0.0**	**0.4**	**7.3**	**100.0**

n of seed sources=208 includes 3 priority crops per household

There is a heavy reliance on own stocks for maize. Beans are predominantly purchased in the market.

39. Petit Goave (hills), next season

Quantities of seed farmers will use next season, by source and crop (%), Le Petit Goave (hills)

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	90.0	45.8	0.0	47.2	0.0	0.0	6.9	100.0
Beans	2512.5	14.9	0.0	84.8	0.0	0.0	0.3	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	53.8	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Peanut	50.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Pigeonpea	8.8	14.3	0.0	85.7	0.0	0.0	0.0	100.0
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	**2715.0**	**15.4**	**0.0**	**84.1**	**0.0**	**0.0**	**0.5**	**100.0**

n of seed sources=153, includes up to 3 crops per household

Again, farmers anticipate less seed aid next season. They'll purchase more bean seed or stock their own, and anticipate using similar total quantities of bean seed next season, possibly indicating that stresses may be lifting.

40. La Vallée de Jacmel, this season

Quantities of seed farmers used this season, by source and crop (%), La Vallee de Jacmel

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	875.8	68.7	2.0	25.9	0.0	0.3	3.1	100.0
Beans	2355.0	37.9	0.2	47.8	3.1	0.0	11.0	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	398.8	78.4	0.0	21.6	0.0	0.0	0.0	100.0
Peanut	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Pigeonpea	54.4	82.1	2.3	15.6	0.0	0.0	0.0	100.0
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	**3684.0**	**50.2**	**0.6**	**39.3**	**2.0**	**0.1**	**7.8**	**100.0**

n of seed sources = 371, includes 3 priority crops per household

Sorghum, maize and pigeonpea are somewhat equally sourced primarily by own reserves. There is significant bean seed aid this season (mostly developmental). Next season, farmers intend to plant significantly less bean seed, and to source a greater proportion from their own stocks.

41. La Vallée de Jacmel, next season

Quantities of seed farmers used this season, by source and crop (%), La Vallee de jacmel

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	680.5	83.2	0.0	16.8	0.0	0.0	0.0	100.0
Beans	1982.5	61.7	0.1	34.0	0.0	1.1	3.2	100.0
Rice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Sorghum	27.5	72.7	0.0	27.3	0.0	0.0	0.0	100.0
Peanut	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Pigeonpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	**2690.5**	**67.2**	**0.0**	**29.6**	**0.0**	**0.8**	**2.3**	**100.0**

n of seed sources = 356, includes up to 3 crops per household

42. Verettes, this season

Quantities of seed farmers used this season, by source and crop (%), Verrettes

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	634.8	18.9	2.8	63.4	0.0	8.7	6.3	100.0
Beans	2806.3	1.2	0.0	98.8	0.0	0.0	0.0	100.0
Rice	3573.8	14.4	6.8	64.6	1.9	11.7	0.6	100.0
Sorghum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Peanut	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Pigeonpea	64.8	7.7	0.0	92.3	0.0	0.0	0.0	100.0
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	**7079.6**	**9.5**	**3.7**	**78.3**	**1.0**	**6.7**	**0.8**	**100.0**

n of seed sources = 396, includes 3 priority crops per household

43. Verrettes, next season

Quantities of seed farmers will use next season, by source and crop (%), Verrettes

		Percentage distribution						
	Total kgs	Stocks	Input store	Market	Farmer seed producer	Family or friend	Seed aid	Total
Maize	265.5	8.0	10.1	79.6	0.0	2.4	0.0	100.0
Beans	2035.0	5.8	0.0	94.2	0.0	0.0	0.0	100.0
Rice	3280.0	15.8	3.0	72.3	0.0	8.8	0.0	100.0
Sorghum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
Peanut	3.8	0.0	0.0	100.0	0.0	0.0	0.0	100.0
Pigeonpea	57.5	4.3	0.0	95.7	0.0	0.0	0.0	100.0
Cowpea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	na
All above crops	**5641.7**	**11.7**	**2.2**	**80.8**	**0.0**	**5.3**	**0.0**	**100.0**

n of seed sources = 259, includes up to 3 crops per household

Significant amounts of bean seed are obtained in the market for both seasons. Rice seed is also primarily purchased, although there are some own reserves and some gifts.

5. SEED USE THIS SEASON – SOWING AMOUNTS COMPARED WITH 'NORMAL' AMOUNTS SOWED, BY SITE AND CROP

These calculations reflect 2836 individual records from farmers across Haiti, asking them about their planting practices in the **CURRENT** season for their 3 most important crops, and how this compared with the amounts they **normally** sow for that crop and season. The tables below show the results for main crops (n=10 or more),first by proportion of those growing the crop, and then by individual counts, with the **average total** change by crop as the last column. This is the mean of all the individual % changes, including zeros. This is followed by standard error on the mean, to give a sense of the variability.

NOTE that in many cases the mean change will be close to zero: for instance, in Léogâne and Verrette, the majority of farmers did NOT change the amounts sowed, so a negative mean change here means that a slightly greater number of farmers reduced their sowing amounts, compared with those who increased amounts. But the core message is that most did not change.

44. Comparison across sites, by crop

Crop	N	Percent of farmers growing this crop			Total	Mean % Change across sites (+ SE)
		Used MORE seed	Used LESS seed	No Change		
Maize	888	6.6	50.1	43.2	100.0	-18.0 (1.3)
Bean	594	8.6	55.6	35.9	100.0	-16.4 (1.9)
Plgeonpea	279	6.5	43.7	49.8	100.0	-16.0 (2.4)
Potato	201	6.5	40.8	52.7	100.0	-12.6 (4.0)
Sorghum	176	2.3	34.1	63.6	100.0	-13.9 (3.2)
Banana	153	5.9	47.7	46.4	100.0	-13.4 (3.4)
Peanut	102	5.9	55.9	38.2	100.0	-19.1 (3.6)
Rice	95	5.3	31.6	63.2	100.0	-8.1 (3.2)
Manioc	94	9.6	53.2	37.2	100.0	-13.0 (6.6)
Cowpea	93	1.1	46.2	52.7	100.0	-20.6 (3.0)
Yam	38	5.3	42.1	52.6	100.0	-11.8 (4.9)
Cabbage	23	0.0	30.4	69.6	100.0	-16.0 (5.3)
Carrot	17	0.0	29.4	70.6	100.0	-12.0 (5.0)
ALL CROPS	**2815**	**6.5**	**47.8**	**45.7**	**100.0**	**-15.9 (0.8)**

Across the most widely-used crops, nearly half of farmers have sowed less than normal. While individual reductions may be high for some, across the sample for each crop, total reductions from the norm are generally 10-16%.

45. BASSIN BLEU – proportion using more or less seed than normal this season

		Proportion growing crop (%)			
Crop	N	Use MORE seed	Use LESS Seed	Use same	Total
Banana	33	3.0	75.8	21.2	100.0
Bean	57	7.0	82.5	10.5	100.0
Maize	89	1.1	84.3	14.6	100.0
Manioc	38	5.3	86.8	7.9	100.0
Potato	23	0.0	82.6	17.4	100.0
Pigeonpea	48	10.4	77.1	12.5	100.0
Cowpea	15	0.0	66.7	33.3	100.0
Pois souche	17	0.0	82.4	17.6	100.0
ALL CROPS	**324**	**4.3**	**81.1**	**14.5**	**100.0**

46. BASSIN BLEU – Mean changes compared with normal this season

	Use MORE seed		Use LESS Seed		NO Change	Mean change (%) for all growing crop
Crop	N	mean change	n	mean change	n	
Banana	1	75.0	25	-46.4 (4.8)	7	-32.9 (6.0)
Bean	4	32.7 (12.0)	47	-47.1 (3.0)	6	-36.6 (4.1)
Maize	1	33.3	75	-47.5 (2.0)	13	-39.7 (2.6)
Manioc	2	83.4 (16.6)	33	-49.6 (3.2)	3	-38.7 (5.9)
Potato	0		19	-44.9 (3.0)	4	-37.1 (4.9)
Pigeonpea	5	85.0 (31.2)	37	-49.4 (2.7)	6	-29.2 (7.1)
Cowpea	0		10	-42.1 (6.1)	5	-28.1 (6.6)
Pois souche	0		14	-50.5 (6.0)	3	-41.6 (6.8)
ALL CROPS	**14**	**62.9 (12.7)**	**263**	**-47.6 (1.1)**	**47**	**-35.8 (1.8)**

Comments: The majority of farmers here (above 75% in most crops) seem to be using less seed. It is not clear why this would be – as Bassin Bleu was far from the direct impacts. The amount of reduction was large – nearly reducing amounts sown by half across all crops, which is greater than seen in other sites.

Looking in the 'earthquake files' note that 26% also say they have changed the land area they sow–but that this is **NOT due to the earthquake.** (There was a **DROUGHT)**

Similarly – there seem to be changes in labor availability. The reason for this changes is not explained in the questionnaires- but may have been discussed in the focus groups or elsewhere.

47. BELLE ANSE – proportion using more or less seed than normal this season

		Proportion growing crop (%)			
Crop	N	Use MORE seed	Use LESS Seed	Use same	Total
Peanuts	25	4.0	28.0	68.0	100.0
Beans	59	10.2	50.8	39.0	100.0
Maize	102	3.9	50.0	46.1	100.0
Manioc	29	0.0	24.1	75.9	100.0
Potatoes	10	0.0	20.0	80.0	100.0
Pigeonpea	15	6.7	33.3	60.0	100.0
Sorghum	58	0.0	34.5	65.5	100.0
ALL CROPS	**303**	**4.0**	**41.9**	**54.1**	**100.0**

48. BELLE ANSE – Mean changes compared with normal this season

	Use MORE seed		Use LESS Seed		NO Change	Mean change (%) for all growing crop
Crop	N	mean change	n	mean change	n	
Peanuts	1		7		17	-9.2 (4.9)
Beans	6		30		23	-15.0 (4.8)
Maize	4		51		47	-20.0 (3.1)
Manioc	0		7		22	-10.0 (3.4)
Potatoes	0		2		8	-9.2 (6.9)
Pigeonpea	1		5		9	-8.1 (10.3)
Sorghum	0		20		38	-18.6 (3.6)
ALL CROPS	**12**		**127**		**164**	**-16.3 (1.8)**

Any changes here are mostly associated maize and beans; the median change for all other crops is zero. However, even for beans and maize, the magnitude of change is modest – given the small sample size and the proximity of the shock. The most common reason given for reducing beans or maize seed is financial – low financial resources to purchase seed. For upcoming season, a greater proportion intend to use the same (or more) as normal, roughly 80%.

49. CHANTAL – proportion using more or less seed than normal this season

		Proportion growing crop (%)			
Crop	N	Use MORE seed	Use LESS Seed	Use same*	Total
Banana	12	8.3	33.3	58.3	100.0
Beans	84	9.5	61.9	28.6	100.0
Maize	108	3.7	57.4	38.9	100.0
Potato	56	7.1	48.2	44.6	100.0
Pigeonpea	30	6.7	50.0	43.3	100.0
Rice	10	10.0	50.0	40.0	100.0
Others	15	6.7	53.3	40.0	100.0
ALL CROPS	**315**	**6.6**	**54.9**	**38.4**	**100.0**

NOTE – one respondent grew beans for first time in this sample

Other crops – peanuts, yam, sorghum, peppers for the first time

About half of the farmers were using less seed across crops.–on average about 20%. (note that bananas went up – though this reflects one large increase, balanced against 4 people who made modest decreases). Maize and beans and potatoes have greater reductions than others in absolute amounts sowed, a trend that persists (less dramatically) into the coming season. REASONS for crop change need to be analyzed.

50. CHANTAL – Mean changes compared with normal this season

	Use MORE seed		Use LESS Seed		NO Change	Mean change (%) for all growing crop
Crop	n	mean change	N	mean change	N	
Banana	1		4		7	**+14.3 (21.7)**
Beans	8		52		24	-17.2 (4.6)
Maize	4		62		42	-24.3 (2.8)
Potato	4		27		25	-18.4 (4.0)
Pigeonpea	2		15		13	-20.0 (6.6)
Rice	1		5		4	-15.0 (15.9)
Others*	1		8		6	-19.3 (11.6)
ALL CROPS	**21**		**173**		**121**	**-19.2 (2.1)**

51. HINCHE – proportion using more or less seed than normal this season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Peanut	11	18.2	63.6	18.2	100.0
Beans	5	20.0	40.0	40.0	100.0
Maize	57	5.3	49.1	45.6	100.0
Pigeonpea	34	5.9	50.0	44.1	100.0
Cowpea	29	0.0	44.8	55.2	100.0
Sorghum	30	6.7	26.7	66.7	100.0
ALL CROPS	**174**	**6.9**	**46.0**	**47.1**	**100.0**

Maize is the most significant change (though over half either maintained or increased quantities)– should find out why (bean sample size is too small to make conclusions). In survey, farmers coted a range of reasons for decreasing maize, from financial, to age/illness, to environmental stress. NOTE that sowing intentions showed an INCREASE for the upcoming season, suggesting possible compensating activities in livelihoods – e.g. more emphasis on farming from other activities, or increased emphasis on certain crops, such as cash crops. For the next season (other tables), decreased seed amounts were often related to lack of money for purchase (e.g. peanuts, potatoes).

52. HINCHE – Mean changes compared with normal this season

	Use MORE seed		Use LESS Seed		NO Change	Mean change (%) for all growing crop
Crop	N	mean change	n	mean change	n	
Peanut	2		7		2	-9.9 (19.7)
Beans	1		2		2	-6.7 (20.1)
Maize	3		28		26	-21.7 (4.7)
Pigeonpea	2		17		15	-18.5 (8.3)
Cowpea	0		13		16	-22.7 (5.0)
Sorghum	2		8		20	-7.5 (7.1)
ALL CROPS	**12**		**80**		**82**	**-14.1 (4.1)**

53. LASCAHOBAS – proportion using more or less seed than normal this season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Peanut	44	4.5	68.2	27.3	100.0
Banana	26	7.7	76.9	15.4	100.0
Bean	53	7.5	73.6	18.9	100.0
Maize	58	8.6	62.1	29.3	100.0
Pigeonpea	23	8.7	34.8	56.5	100.0
ALL CROPS	**214**	**8.4**	**64.5**	**27.1**	**100.0**

Except for pigeon pea, most crops seem affected by less seed use. WHY. (need also to statistically test). NOTE that the future intentions (next season) show INCREASES for some crops, such as peanut and maize, though these are biased by a few individual farmers dramatically increasing emphasis on a single crop.

54. LASCAHOBAS – Mean changes compared with normal this season

	Use MORE seed		Use LESS Seed		NO Change	Mean change (%) for all growing crop
Crop	n	mean change	n	mean change	n	
Peanut	2		30		12	-24.7 (4.7)
Banana	2		20		4	-25.4 (8.9)
Bean	4		39		10	-30.5 (4.0)
Maize	5		36		17	-22.1 (5.7)
Pigeonpea	2		8		13	-11.4 (9.6)
TOTAL	**18**		**138**		**158**	**-22.3 (3.0)**

55. LEOGANE – proportion using more or less seed than normal this season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Banana	13	7.7	30.8	61.5	100.0
Beans	57	3.5	35.1	61.4	100.0
Maize	86	3.5	44.2	52.3	100.0
Manioc	12	33.3	33.3	33.3	100.0
Potato	38	10.5	34.2	55.3	100.0
Pigeonpea	15	6.7	26.7	66.7	100.0
Cowpea	23	0.0	30.4	69.6	100.0
ALL CROPS	**259**	**5.8**	**36.7**	**57.5**	**100.0**

56. LEOGANE – Mean changes compared with normal this season

	Use MORE seed		Use LESS Seed		NO Change	Mean change (%) for all growing crop
Crop	N	mean change	n	mean change	n	
Banana	1		4		8	-4.4 (7.0)
Beans	2		20		35	-9.4 (2.3)
Maize	3		38		45	-21.2 (3.3)
Manioc	4		4		4	**11.5 (17.5)**
Potato	4		13		21	-11.3 (4.9)
Pigeonpea	1		4		10	-6.3 (9.9)
Cowpea	0		7		16	-15.7 (5.4)
ALL CROPS	**15**		**95**		**149**	**-13.3 (1.9)**

NOTE that in many cases the median change was zero: the majority of farmers did NOT change the amounts sowed. So a negative mean change here means that a slightly greater number of farmers reduced their sowing amounts, compared with those who increased amounts. But the core message is that most did not change. With Manioc, those who increased did so to a greater extent than those who decreased, leading to an overall positive mean change (though median is zero for this crop as well). The most common reason given for decreasing amounts is financial, followed by lack of land.

The upcoming season notes very little change from normal, so the suggestion here is that changes to sowing amounts were short-term for most farmers – something which needs further verification.

57. MARIGOT – proportion using more or less seed than normal this season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Banana	17	11.8	41.2	47.1	100.0
Carrot	17	0.0	29.4	70.6	100.0
Cabbage	11	0.0	45.5	54.5	100.0
Bean	87	10.3	64.4	25.3	100.0
Maize	82	13.4	58.5	28.0	100.0
Potato	20	10.0	40.0	50.0	100.0
Leek	10	10.0	20.0	70.0	100.0
Pigeonpea	16	6.3	50.0	43.8	100.0
Sorghum	11	0.0	81.8	18.2	100.0
ALL CROPS	**288**	**9.0**	**53.5**	**37.5**	**100.0**

Other crops include Taro, Yan, Manioc, Malanga, Onions, Tomatoes,

58. MARIGOT – Mean changes compared with normal this season

	Use MORE seed		Use LESS Seed		NO Change	Mean change (%) for all growing crop
Crop	n	mean change	n	mean change	n	
Banana	2		7		8	-6.8 (13.3)
Carrot	0		5		12	-12.0 (5.0)
Cabbage	0		5		6	-25.8 (9.0)
Bean	9		56		22	-23.2 (4.7)
Maize	11		48		23	-16.2 (4.6)
Potato	2		8		10	-15.4 (13.6)
Leek	1		2		7	**2.1 (12.1)**
Pigeonpea	1		8		7	-23.3 (9.0)
Sorghum	0		9		2	-36.9 (7.0)
ALL CROPS	**26**		**154**		**108**	**-17.9 (2.3)**

Beans and maize affected in particular, but this may be transient, as most farmers intend to sow normal, or even increased amounts in the coming season. However, the median change for the upcoming season is zero, so the positive average change reflects the actions of a few individuals who plan to intensify greatly their operations. These trends may not be widespread, and should be verified if they actually occur.

59. Le Petit Goave – PLAINS – proportion using more or less seed than normal this season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Banana	21	4.8	9.5	85.7	100.0
Maize	83	13.3	45.8	41.0	100.0
Pigeonpea	53	3.8	30.2	66.0	100.0
Cowpea	26	3.8	50.0	46.2	100.0
Sorghum	21	0.0	23.8	76.2	100.0
ALL CROPS	**217**	**7.2**	**36.2**	**56.1**	**100.0**

60. Le Petit Goave – PLAINS – Mean changes compared with normal this season

Crop	Use MORE seed		Use LESS Seed		NO Change	Mean change (%) for all growing crop
	n	mean change	n	mean change	N	
Banana	1		2		18	**4.7 (7.5)**
Maize	11		38		34	-10.8 (4.8)
Pigeonpea	2		16		35	-11.5 (5.0)
Cowpea	1		13		12	-18.2 (6.9)
Sorghum	0		5		16	-14.3 (5.8)
ALL CROPS	**17**		**80**		**120**	**-10.7 (2.6)**

Modest dips maize. relatively stable production – given its locales. Note that the most common reason cited for decreasing seed sowing were drought, land access, and illness/old age. Only one farmer mentioned the earthquake as a major reason for lowering sowing rates. Next season's intentions are closer to norm.

61. Le Petit Goave – HILLS – proportion using more or less seed than normal this season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Peanuts	10	10.0	60.0	30.0	100.0
Cabbage	12	0.0	16.7	83.3	100.0
Beans	41	0.0	43.9	56.1	100.0
Yams	13	7.7	30.8	61.5	100.0
Maize	38	7.9	36.8	55.3	100.0
ALL CROPS	**132**	**4.5**	**36.4**	**59.1**	**100.0**

62. Le Petit Goave – HILLS – Mean changes compared with normal this season

Crop	Use MORE seed		Use LESS Seed		NO Change	Mean change (%) for all growing crop
	n	mean change	n	mean change	n	
Peanuts	1		6		3	-12.4 (13.9)
Cabbage	0		2		10	-6.9 (4.8)
Beans	0		18		23	-15.5 (3.5)
Yams	1		4		8	**2.4 (4.4)**
Maize	3		14		21	-12.1 (4.4)
ALL CROPS	**6**		**50**		**78**	**-10.4 (2.4)**

This shows a different pattern than in the plains of Petit Goave. Labor may be an issue here, or share-cropping arrangements, both of which were cited as issues when discussing the following season – CHECK. A number cited environmental hazards, such as drought or pests, and a few even cited the (2008) cyclone; elsewhere such stresses do not typically lead to decreased sowing rates – suggesting very high vulnerability here, or a (strategic?) dependence on/expectation of aid.

NOTE that in many cases the mean change was close to zero: the majority of farmers did NOT change the amounts sowed, so a negative mean change here means that a slightly greater number of farmers reduced their sowing amounts, compared with those who increased amounts. But the core message is that most did not change.

63. LA VALLÉE – proportion using more or less seed than normal this season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Bananas	10	0.0	20.0	80.0	100.0
Beans	95	16.8	51.6	31.6	100.0
Yam	11	0.0	45.5	54.5	100.0
Maize	100	7.0	39.0	54.0	100.0
Potatoes	10	20.0	30.0	50.0	100.0
Pigeonpeas	17	0.0	23.5	76.5	100.0
Sorghum	47	4.3	27.7	68.1	100.0
ALL CROPS	**293**	**9.2**	**39.9**	**50.9**	**100.0**

In 4 additional cases here, people were growing a crop for the first time this season, so comparisons could not be made.

64. LA VALLÉE – Mean changes compared with normal this season

	Use MORE seed		Use LESS Seed		NO Change	Mean change (%) for all growing crop
Crop	n	mean change	n	mean change	n	
Bananas	0		2		8	-10.3 (7.4)
Beans	16		49		30	**0.2 (8.6)**
Yam	0		5		6	-28.7 (10.5)
Maize	7		39		54	-6.7 (6.1)
Potatoes	2		3		5	**+56.0 (68.0)**
Pigeonpeas	0		4		13	-8.3 (3.8)
Sorghum	2		13		32	-3.3 (9.5)
ALL CROPS	**27**		**117**		**149**	**-3.1 (4.5)**

Beans may be an issue here, though the majority of farmers do not intend to decrease sowing amounts from the norm for the upcoming season. Access to land appears to be a particular issue at this site, though again, financial constraints were often cited. Pursue this, as there may be particularly vulnerable groups who continue to plant less than they normally do.

Note that sample size is small for yam and bananas.

65. VERRETTES – proportion using more or less seed than normal this season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Bananas	9	11.1	11.1	77.8	100.0
Beans	53	1.9	28.3	69.8	100.0
Maize	85	8.2	18.8	72.9	100.0
Potatoes	42	2.4	21.4	76.2	100.0
Pigeonpeas	21	4.8	23.8	71.4	100.0
Rice	85	4.7	29.4	65.9	100.0
ALL CROPS	**297**	**5.1**	**23.9**	**71.0**	**100.0**

66. VERRETTES – Mean changes compared with normal this season

	Use MORE seed		Use LESS Seed		NO Change	Mean change (%) for all growing crop
Crop	n	mean change	n	mean change	n	
Bananas	1		1		7	**0.0 (2.8)**
Beans	1		15		37	-8.7 (2.4)
Maize	7		16		62	-1.6 (3.1)
Potatoes	1		9		32	-7.3 (2.8)
Pigeonpeas	1		5		15	-8.7 (5.4)
Rice	4		25		56	-7.3 (3.1)
ALL CROPS	**15**		**71**		**211**	**-5.8 (1.4)**

NOTE that in many cases the mean change was close to zero: the majority of farmers did NOT change the amounts sowed, so a negative mean change here means that a slightly greater number of farmers reduced their sowing amounts, compared with those who increased amounts. The median change for all crops was zero – the core message is that most did not change.

Both current and following season's intentions reveal that most (around 70%) of farmers have not changed sowing intentions from the norm, and may even have a modest increase in the coming season.

6. SEED USE NEXT SEASON – SOWING AMOUNTS COMPARED WITH 'NORMAL' AMOUNTS SOWED, BY SITE AND CROP

These calculations reflect 2284 individual records from farmers across Haiti, asking them about their planting intentions for the **coming** season, and how this compares with the amounts they **normally sow** for that crop and season.

Farmers listed the quantities for their 3 most important crops. The tables below show the results for main crops (n=10 or more),first by proportion of those growing the crop, and then by individual counts, with the **average total** change by crop as the last column. This is the mean of all the individual % changes, including zeros. This is followed by standard error on the mean, to give a sense of the variability.

NOTE that in many cases the mean change will be close to zero: for instance, in Léogâne and Verrette, the majority of farmers did NOT change the amounts sowed, so a negative mean change here means that a slightly greater number of farmers reduced their sowing amounts, compared with those who increased amounts. But the core message is that most did not change.

67. Comparison across sites, by crop – intentions for NEXT season, against norms

Crop	N	Percent of farmers growing this crop			Total	Mean % Change across sites (+ SE)
		Used MORE seed	Used LESS seed	No Change		
Maize	559	11.1	32.6	56.4	100.0	**+10.0 (10.8)**
Bean	546	11.4	38.3	50.4	100.0	-1.9 (5.1)
Pigeon pea	93	7.5	39.8	52.7	100.0	-4.9 (6.0)
Potato	328	9.5	32.3	58.2	100.0	**+83.9 (56.7)**
Sorghum	132	8.3	28.8	62.9	100.0	-1.5 (5.5)
Banana	108	16.7	39.8	43.5	100.0	-1.1 (10.4)
Peanut	100	13.0	37.0	50.0	100.0	-6.0 (5.1)
Rice	100	7.0	28.0	65.0	100.0	-4.9 (3.8)
Manioc	126	7.1	27.8	65.1	100.0	-10.0 (2.3)
Cowpea	40	15.0	20.0	65.0	100.0	**+8.6 (10.1)**
Yam	14	21.4	42.9	35.7	100.0	-3.3 (20.1)
Cabbage	28	10.7	25.0	64.3	100.0	**+5.2 (9.8)**
Carrot	21	4.8	9.5	85.7	100.0	**+8.3 (10.3)**
ALL CROPS	**2284**	**10.7**	**33.7**	**55.6**	**100.0**	**+15.3 (8.9)**

NOTE – the crops on this table are in same order as for current season, to allow easier comparison.

The final column shows shifts at the margin, sometimes affected by a few individual decisions one way or the other, as **median** changes were zero for most crops, including maize, beans, and potatoes. However, it is still striking that, in contrast with the current season, farmers intend to sow more than normal for the coming season across major crops, with beans, rice and peanuts and sorghum being notable exceptions. Seed *access* for the poor (i.e. cash shortage for market purchase) may be an issue here for the legumes (but unlikely for sorghum). Projected declines are modest in all crops cited.

68. BASSIN BLEU – proportion using more or less seed than normal NEXT season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Banana	23	17.4	65.2	17.4	100.0
Bean	97	7.2	66.0	26.8	100.0
Maize	62	11.3	64.5	24.2	100.0
Manioc	29	6.9	44.8	48.3	100.0
Potato	43	7.0	65.1	27.9	100.0
Pigeonpea	18	0.0	55.6	44.4	100.0
Cowpea	5	0.0	80.0	20.0	100.0
Pois souche	14	7.1	71.4	21.4	100.0
ALL CROPS	**304**	**8.6**	**61.8**	**29.6**	**100.0**

69. BASSIN BLEU – Mean changes compared with normal NEXT season

	Use MORE seed	Use LESS seed	Use Same amount	Mean change (%) for all growing crop
Crop	n	n	n	
Banana	4	15	4	-17.2 (7.1)
Bean	7	64	26	-19.3 (4.1)
Maize	7	40	15	-22.6 (5.3)
Manioc	2	13	14	-14.7 (8.1)
Potato	3	28	12	-19.9 (5.1)
Pigeonpea	0	10	8	-25.8 (6.8)
Cowpea	0	4	1	-29.0 (10.7)
Pois souche	1	10	3	-22.8 (6.4)
ALL CROPS	**26**	**188**	**90**	**-19.3 (2.3)**

There is still a high proportion of farmers who say they will use less seed than usual (60%, compared with 81% of farmers reducing seed amounts in the current season). However, the scale of reduction, compared to normal, is less in the coming season than the present one. While, in the current season, most crops had mean reductions between 30-40% of seed volume, for the coming season, reductions are half that, between 15 and 20%. The (slight) decreasing trend for crops such as maize in Bassin Bleu goes counter to the national trend, where maize is increasing. The most common reason given for continued reductions is household lack of money.

70. BELLE ANSE – proportion using more or less seed than normal NEXT season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Peanuts	11	0.0	45.5	54.5	100.0
Beans	61	6.6	27.9	65.6	100.0
Maize	98	6.1	20.4	73.5	100.0
Manioc	40	0.0	17.5	82.5	100.0
Potatoes	38	2.6	7.9	89.5	100.0
Pigeonpea	4	0.0	0.0	100.0	100.0
Sorghum	18	0.0	11.1	88.9	100.0
ALL CROPS	**279**	**3.9**	**21.9**	**74.2**	**100.0**

The great majority of farmers intend to sow normal amounts in the coming season. Compared with the current season, many fewer farmers plan to use less seed than normal for the following season. This is especially the case for beans and maize, the two most important crops; in the current season, half the farmers used less seed, but only 20-24% intend to do so for the coming season. As the table below notes, these reductions are generally modest, less than 10%, with only peanuts showing a sizeable reduction in volumes they intend to plant. Note, the reason the net change for potatoes is positive is that one individual plans to increase sowing amounts five-fold, against three others with more modest reductions. Some reasons given include regaining lost harvest, or feeding children (for increases), lack of money or difficulties in finding labor (for decreases).

For all crops, the MEDIAN change was 0.0%

71. BELLE ANSE – Mean changes compared with normal NEXT season

	Use MORE seed	Use LESS seed	Use Same amount	Mean change (%) for all growing crop
Crop	N	n	N	
Peanuts	0	5	6	-19.9 (7.8)
Beans	4	17	40	-9.7 (3.9)
Maize	6	20	72	-6.9 (2.4)
Manioc	0	7	33	-6.7 (2.7)
Potatoes	1	3	34	**+10.3 (15.3)**
Pigeonpea	0	0	4	----------
Sorghum	0	2	16	-4.6 (3.2)
ALL CROPS	**11**	**61**	**207**	**-6.1 (2.5)**

Means not calculated for pigeonpea – numbers too small.

72. CHANTAL – proportion using more or less seed than normal NEXT season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same*	Total
Banana	13	15.4	23.1	61.5	100.0
Beans	48	10.4	37.5	52.1	100.0
Maize	67	9.0	55.2	35.8	100.0
Potato	53	7.5	47.2	45.3	100.0
Pigeonpea	13	0.0	53.8	46.2	100.0
Rice	19	15.8	47.4	36.8	100.0
Sorghum	22	18.2	50.0	31.8	100.0
ALL CROPS	**250**	**10.0**	**48.4**	**41.6**	**100.0**

Relatively modest mean reductions across crops, with banana and sorghum showing modest increases planned, compared with normal amounts sowed. Nearly half of all farmers plan to sow the same as normal for their main crops; indeed, the median change for all crops bar maize and pigeon pea is zero.

73. CHANTAL – Mean changes compared with normal NEXT season

	Use MORE seed	Use LESS seed	Use Same amount	Mean change (%) for all growing crop
Crop	n	n	n	
Banana	2	3	8	**+4.6 (8.6)**
Beans	5	18	25	-7.5 (5.4)
Maize	6	37	24	-12.1 (7.7)
Potato	4	25	24	-5.0 (6.8)
Pigeonpea	0	7	6	-21.8 (6.7)
Rice	3	9	7	-12.8 (8.6)
Sorghum	4	11	7	**+6.0 (18.2)**
ALL CROPS	**25**	**121**	**104**	**-8.4 (3.2)**

Other crops – peanuts, peppers, manioc. Sorghum, which was a minor crop in currents season, becomes important in upcoming season.

74. HINCHE – proportion using more or less seed than normal NEXT season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Peanut	21	19.0	38.1	42.9	100.0
Maize	24	20.8	29.2	50.0	100.0
Manioc	18	5.6	55.6	38.9	100.0
Potato	18	11.1	38.9	50.0	100.0
Pigeonpea	14	14.3	64.3	21.4	100.0
Cowpea	11	36.4	18.2	45.5	100.0
Sorghum	20	15.0	35.0	50.0	100.0
ALL CROPS	**142**	**16.9**	**38.0**	**45.1**	**100.0**

Sowing intentions actually increased in this area, possibly reflecting expansion of area cultivated and indicating possible longer-term shifts in crop profiles. That being said, the median change for most crops was 0%. Decreases for peanuts and potatoes typically were due to lack of money for purchase, though some increases in the former were due to its ability to be a cash crop.

While important at this site, beans are not a significant crop in the coming season in Hinche. Maize and cowpea increases reflect widely varying strategies, with some farmers increasing area 5-fold, others reducing seed amounts by 70%. This shows how strategies and responses can vary considerably among farmers.

75. HINCHE – Mean changes compared with normal NEXT season

	Use MORE seed	Use LESS seed	Use Same amount	Mean change (%) for all growing crop
Crop	n	n	N	
Peanut	4	8	9	-6.5 (11.8)-
Maize	5	7	12	**+11.0 (15.9)**
Manioc	1	10	7	-21.5 (9.6)
Potato	2	7	9	-6.0 (13.1)
Pigeonpea	2	9	3	**+5.6 (31.9**)
Cowpea	4	2	5	**+46.8 (30.9)**
Sorghum	3	7	10	**+15.4 (26.9)**
ALL CROPS	**23**	**54**	**67**	**+ 4.9 (7.0)**

76. LASCAHOBAS – proportion using more or less seed than normal NEXT season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Peanut	56	14.3	33.9	51.8	100.0
Banana	8	0.0	50.0	50.0	100.0
Bean	48	16.7	45.8	37.5	100.0
Maize	26	7.7	30.8	61.5	100.0
Pigeonpea	10	40.0	20.0	40.0	100.0
ALL CROPS	**158**	**14.6**	**36.1**	**49.4**	**100.0**

Other crops – manioc, peppers, cabbage, sorghum.

Pigeonpea shows striking increases, as does cabbage (not included, due to small sample size). The median change is zero for all crops, bar banana (negative) and pigeon pea (positive) Several cowpea growers increased their seed use, some citing the economic crisis as s reason to do this.

77. LASCAHOBAS – Mean changes compared with normal NEXT season

	Use MORE seed	Use LESS seed	Use Same amount	Mean change (%) for all growing crop
Crop	n	n	n	
Peanut	8	19	29	**+0.3 (7.6)**
Banana	0	4	4	-25.8 (11.4)
Bean	8	22	18	-13.0 (5.7)
Maize	2	8	16	-5.0 (9.4)
Pigeonpea	4	2	4	**+53.7 (30.3)**
ALL CROPS	**23**	**57**	**78**	-3.1 (4.3)

78. LEOGANE – proportion using more or less seed than normal NEXT season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Banana	21	33.3	33.3	33.3	100.0
Beans	41	26.8	26.8	46.3	100.0
Maize	50	26.0	34.0	40.0	100.0
Manioc	14	28.6	7.1	64.3	100.0
Potato	43	25.6	20.9	53.5	100.0
Pigeonpea	5	0.0	40.0	60.0	100.0
Cowpea	10	20.0	20.0	60.0	100.0
ALL CROPS	**193**	**27.5**	**26.4**	**46.1**	**100.0**

Very striking that there is considerable dynamism among farmers for their plans in the coming season. Roughly a quarter of all farmers intend to increase sowing, and an equal proportion to decrease in the coming season. The few farmers who explained why they would decrease highlighted the lack of planting area in the region.

79. LEOGANE – Mean changes compared with normal NEXT season

	Use MORE seed	Use LESS seed	Use Same amount	Mean change (%) for all growing crop
Crop	n	n	n	
Banana	7	7	7	0.0
Beans	11	11	19	-2.0 (1.5)
Maize	13	17	20	-7.0 (4.1)
Manioc	4	1	9	0.0
Potato	11	9	23	-0.7 (0.7)
Pigeonpea	0	2	3	0.0
Cowpea	2	2	6	-7.1 (7.1)
ALL CROPS	**57**	**57**	**94**	**-2.8 (1.2)**

Note – this site had a very large number of incomplete data points (>250), where farmers stated whether they would sow more, less, or same as normal, but where they did not supply the quantities for normal or planned sowings. Thus, the mean % changes are based on a smaller sample size – with most of these showing zero change (e.g. bananas). Median change was zero in all cases, so negative mean change is effect of a small number of farmers who plan to reduce sowing rates.

80. MARIGOT – proportion using more or less seed than normal NEXT season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Banana	12	16.7	41.7	41.7	100.0
Carrot	21	4.8	9.5	85.7	100.0
Cabbage	14	7.1	35.7	57.1	100.0
Bean	78	12.8	37.2	50.0	100.0
Maize	59	15.3	27.1	57.6	100.0
Potato	42	14.3	31.0	54.8	100.0
Leek	7	0.0	14.3	85.7	100.0
Pigeonpea	3	0.0	100.0	0.0	100.0
ALL CROPS	**255**	**12.2**	**31.4**	**56.5**	**100.0**

Other crops include Yam, Manioc, Peppers, cowpeas. Patate and Pomme de terre were combined.

Bananas show large increase, reflecting big gains for a couple individuals. Similarly, a few individuals are greatly expanding areas to carrots and cabbage, beans, and maize, and one is making a significant surge in potatoes. However, the median change is zero for ALL these crops (except pigeon pea). This suggests that a few farmers are rapidly changing their farming practices, and exploiting opportunities – some mention having sold assets, or acquired land, to concentrate on a particular crop. However, most farmers have not changed practices from the norm.

81. MARIGOT – Mean changes compared with normal NEXT season

	Use MORE seed	Use LESS seed	Use Same amount	Mean change (%) for all growing crop
Crop	n	n	N	
Banana	2	5	5	**+63.9 (78.2)**
Carrot	1	2	18	**+8.3 (10.3)**
Cabbage	1	5	8	**+4.6 (17.3)**
Bean	10	29	39	**+39.6 (33.0)**
Maize	9	16	34	**+62.7 (48.0)**
Potato	6	13	23	**+709 (442)**
Leek	0	1	6	-7.1 (7.1)
Pigeonpea	0	3	0	-39.0 (5.5)
ALL CROPS	**31**	**80**	**144**	**+139.3 (71.0)**

82. Le Petit Goave – PLAINS – proportion using more or less seed than normal NEXT season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Banana	14	7.1	14.3	78.6	100.0
Maize	37	10.8	24.3	64.9	100.0
Pigeonpea	17	5.9	17.6	76.5	100.0
Cowpea	13	0.0	0.0	100.0	100.0
Sorghum	60	5.0	30.0	65.0	100.0
ALL CROPS	**161**	**6.2**	**20.5**	**73.3**	**100.0**

Other crops include: beans, yams, manioc, potatoes (which increased, on average), peppers and rice. Median changes all zero, so mean changes are marginal, showing slightly greater decreases than increases. In this location, the great majority of farmers do not intend to change the amounts they normally sow. This was already an area where the direct effects of the earthquake were hard to discern in the current season (about 1/3 of farmers decreased sowing amounts in the current season) – so the general return to normality – for most – in the upcoming season is not surprising. However, a significant proportion of farmers have decreased areas to sorghum, many citing invasion of swampy water onto their land, though others mention share-cropping constraints, or shifts to other crops, such as bananas, or increased cost of labor.

83. Le Petit Goave – PLAINS – Mean changes compared with normal NEXT season

Crop	Use MORE seed	Use LESS seed	Use Same amount	Mean change (%) for all growing crop
	N	n	n	
Banana	1	2	11	-9.6 (7.6)
Maize	4	9	24	-5.1 (4.7)
Pigeonpea	1	3	13	-4.9 (5.7)
Cowpea	0	0	13	0.0
Sorghum	3	18	39	-8.9 (4.8)
ALL CROPS	**10**	**33**	**118**	**-6.1 (2.3)**

84. Le Petit Goave – HILLS – proportion using more or less seed than normal NEXT season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Cabbage	11	0.0	9.1	90.9	100.0
Beans	37	8.1	32.4	59.5	100.0
Maize	9	0.0	22.2	77.8	100.0
Potatoes	18	0.0	16.7	83.3	100.0
ALL CROPS	**85**	**4.7**	**22.4**	**72.9**	**100.0**

Other crops – peanuts, yams, pigeonpea, sorghum. Peanuts and yams were more important in the current season. Potatoes were also not prominent in the current season. The median change for all crops below is zero. Reductions for potatoes cite weak harvest or difficulties in labor (preparing land). Decreased sowings of beans are mainly linked to lack of funds due to loss of assets to sell (e.g. animals lost during earthquake), or the priority of other costs (funeral, marriage, baptism). Other reasons for reducing areas, include share-cropping or weak harvests.

85. Le Petit Goave – HILLS – Mean changes compared with normal NEXT season

	Use MORE seed	Use LESS seed	Use Same amount	Mean change (%) for all growing crop
Crop	n	n	N	
Cabbage	0	1	10	-1.7 (1.7)
Beans	3	12	22	-3.9 (6.5)
Maize	0	2	7	-7.8 (5.7)
Potatoes	0	3	15	-8.5 (4.9)
ALL CROPS	**4**	**19**	**62**	**-4.6 (3.2)**

86. LA VALLÉE – proportion using more or less seed than normal NEXT season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Beans	91	13.2	31.9	54.9	100.0
Yam	6	33.3	33.3	33.3	100.0
Maize	95	5.3	24.2	70.5	100.0
Potatoes	48	6.2	29.2	64.6	100.0
ALL CROPS	**260**	**9.6**	**27.7**	**62.7**	**100.0**

Other crops include sorghum, bananas, manioc, aubergines. One farmer's increase in yams ('to seek advantage') out-weighs several others who make marginal decreases. With maize, though a few farmers increased seed because they had access to more area, others decreased because they lacked this (one by 100% because no longer had land). Other reasons for decreasing maize seeding included a lack of money, or uncertainty about the current harvest. Lack of labour was mentioned as a reason to decrease sowing, particularly for potatoes.

These individuals were not the majority – the median change, for maize as well as other crops, was zero. However, they may represent a particularly vulnerable segment of the community.

Four individuals plan to grow a crop for the first time, so these figures are excluded from comparisons.

87. LA VALLÉE – Mean changes compared with normal NEXT season

Crop	Use MORE seed	Use LESS seed	Use Same amount	Mean change (%) for all growing crop
	n	n	n	
Beans	12	29	50	-3.7 (4.0)
Yam	2	2	2	**+20.7 (46.1)**
Maize	5	23	67	-7.4 (3.2)
Potatoes	3	14	31	-9.6 (3.6)
ALL CROPS	**25**	**72**	**163**	**-3.9 (2.8)**

88. VERRETTES – proportion using more or less seed than normal NEXT season

		Proportion growing crop (%)			
Crop	n	Use MORE seed	Use LESS Seed	Use same	Total
Beans	43	4.7	14.0	81.4	100.0
Maize	32	15.6	9.4	75.0	100.0
Potatoes	19	0.0	21.1	78.9	100.0
Rice	80	5.0	23.8	71.2	100.0
ALL CROPS	**197**	**6.1**	**16.8**	**77.2**	**100.0**

Bananas minor crop in coming season. Other crops mentioned include peanut, aubergine, gombo, lalo, peppers, tomatoes, and pigoenpeas.

Maize mean increase masks wide variation in strategies – some farmers have abandoned maize, though one plans to increase many-fold the amount sowed. Similar variation is seen with plans for potatoes. The median change is nevertheless zero for all crops, meaning most farmers do not intend to change the amount of seed used. The relatively few farmers increasing seed amounts (6%) are doing so dramatically, possibly intensifying production through acquiring land. With rice, those who *increased* amounts had more land available, those who *decreased* it had less, did not have access to land (or water), or lacked money. One mentioned training in a new seeding technology (probably SRI) as the reason for needed less seed next season.

89. VERRETTES – Mean changes compared with normal NEXT season

	Use MORE seed	Use LESS seed	Use Same amount	Mean change (%) for all growing crop
Crop	n	n	n	
Beans	2	6	35	-1.0 (3.4)
Maize	5	3	24	**+175.5 (153)**
Potatoes	0	4	15	-10.1 (4.9)
Rice	9	19	57	-3.1 (4.3)
ALL CROPS	**12**	**33**	**152**	**+55.7 (38.9)**

7. NEW VARIETIES – ACCESS AND USE

These tables report results from Section III of the survey, about farmers' access to and use of crop varieties that are new to them over the past five years.

These questions look at **where** farmers obtained new varieties, the crop and variety names received, when over the past five years have they obtained these new varieties, and whether they are still sowing them.

An overview table of data across all sites is followed by site-specific details.

90. Farmers obtaining a new variety in the past five years, and source – ALL SITES

		Obtained new varieties (%)				Source of new variety (count)					Frequency of seed aid
Site	Site N	Yes	No	Total	Sourcesn	Seed aid	Input store	Local market	Seed producer association	Family or friends	over past 5 years (average)
Bassin Bleu	110	6	94	100	9	7	1	0	0	1	0.60
Belle Anse	102	12	88	100	24	20	2	0	2	0	0.63
Chantal	107	10	90	100	21	16	0	0	2	3	0.81
Hinche	61	31	69	100	30	30	0	0	0	0	0.11
Lascahobas	72	15	85	100	13	13	0	0	0	0	0.19
Leogane	100	2	98	100	2	2	0	0	0	0	0.07
Marigot	100	4	96	100	10	10	0	0	0	0	0.38
Petit Goave Plains	85	45	55	100	62	49	4	4	3	2	0.38
Petit Goave Hills	45	29	71	100	24	15	1	1	4	3	0.49
Verrette	100	5	95	100	7	3	0	0	4	0	0.03
La Vallee de Jacmel	101	30	70	100	47	42	0	0	2	3	0.10
Total	**983**	**14**	**86**	**100**	**249**	**207**	**8**	**5**	**17**	**12**	**0.38**

Striking is that only 14% of farmers overall have obtained ANY new variety in the past five years, with only Hinche, La Valée, and Petit Goave (plain) having much novelty in recent seasons. Where farmers did identify the source, **83.1 % of new introductions came via seed aid** (207 OF 249). Moreover, seed aid this year alone provided **56%** of all reported new variety introductions for the past 5 years.

Of the new varieties obtained through seed aid, **79 %** were for maize or beans. Of 13 new varieties obtained from input stores or the local market, 10 were vegetable seed or taro. NOTE – the counts in the right-hand side of the table are not for individuals, but cases of new varieties, as some farmers may cite more than one new variety, whether from the same source or (sometimes) different sources.

Finally, the far right column counts the **average** frequency of seed aid over the sample for the past five years; if all farmers had received every year in the past five, the figure would be 5.0, if all did, but only for one year, it would be 1.0.

91. Bassin Bleu results

Source of new varieties	Count	%
seed aid	7	78%
input store	1	11%
local market	0	0%
seed producers association	0	0%
family or friends	1	11%
total	**9**	**100%**

Still growing	Count	%
yes	2	22%
no	7	78%
total	**9**	**100%**

Crops	Count	%
maize	4	44%
beans	2	22%
sweet potato	1	11%
banana	1	11%
lima bean	1	11%
all	**9**	**100%**

These data suggest poor quality recent seed aid (2009).

Year obtained	Count	%
2005	1	11%
2006	0	0%
2007	0	0%
2008	0	0%
2009	6	67%
2010	0	0%
not reported	2	22%
total	**9**	**100%**

Why not still growing	Count	%
bad seed	4	57%
low yield	1	14%
arrived too late	1	14%
no explanation	1	14%
total	**7**	**100%**

Crop	Variety names
maize	poulin
beans	black
sweet potato	nayani
banana	fia 21
lima bean	unnamed

92. Belle Anse

Source of new varieties	Count	%
seed aid	20	83%
input store	2	8%
local market	0	0%
seed producers association	2	8%
family or friends	0	0%
total	**24**	**100%**

Still growing	Count	%
yes	16	67%
no	8	33%
Total	24	100%

Crops	Count	%
maize	9	38%
beans	8	33%
sorghum	4	17%
banana	1	4%
unidentified	2	8%
all	**24**	**100%**

Recent seed aid common here as well, but more popular than in BBleu.

Year obtained	Count	%
2005	4	17%
2006	2	8%
2007	0	0%
2008	2	8%
2009	8	33%
2010	8	33%
not reported	0	0%
total	**24**	**100%**

Why not still growing	Count	%
bad seed	2	25%
“lost”	2	25%
drought	2	25%
didn’t germinate	1	13%
no response	1	13%
total	**8**	**100%**

Crop	Variety names
maize	improved, ti camion, alizene
beans	noir, arifi
sorghu	3 months, panache, ponpon
banana	miske

93. Chantal

Source of new varieties	Count	%
seed aid	16	76%
input store	0	0%
local market	0	0%
seed producers association	2	10%
family or friends	3	14%
total	**21**	**100%**

Year obtained	Count	%
2005	0	0%
2006	0	0%
2007	4	19%
2008	3	14%
2009	5	24%
2010	2	10%
not reported	7	33%
total	**21**	**100%**

Still growing	Count	%
yes	14	67%
no	7	33%
Total	21	100%

Why not still growing	Count	%
bad seed	1	14%
low market value	2	29%
no response	4	57%
total	**7**	**100%**

Crops	Count	%
maize	3	14%
beans	8	38%
carrot	1	5%
leek	1	5%
sweet potato	2	10%
rice	5	24%
cabbage	1	5%
all	**21**	**100%**

Crop	Variety names
maize	chicken corn
beans	thamazou, ti pitin, rouge
carrot	unidentified
leek	unidentified
sweet potato	ouve leko
rice	prosequisa 4
cabbage	unidentified

Seed aid is dominant here, as well. However, farmers have obtained a wide range of crops here over the past 3 years. This may reflect the activity of seed fairs by CRS in the region – though Chantal is not a core area for CRS operation.

94. Hinche

Source of new varieties	Count	%
seed aid	30	100%
input store	0	0%
local market	0	0%
seed producers association	0	0%
family or friends	0	0%
total	**30**	**100%**

Still growing	Count	%
yes	9	30%
no	21	70%
Total	**30**	**100%**

Crops	Count	%
maize	20	67%
peanut	1	3%
cabbage	1	3%
beans	2	7%
banana	1	3%
pigeonpea	2	7%
sorghum	2	7%
tomato	1	3%
all	**30**	**100%**

A wide range of new varieties – all provided by seed aid. Strikingly, few seem to still be using previously-distributed seed. Interestingly, there appears to be an expectation that farmers would receive seed again, rather than retain their own, something that is difficult to do only for some crops, such as peanuts of F_1 hybrids.

Year obtained	Count	%
2005	2	7%
2006	10	33%
2007	2	7%
2008	1	3%
2009	1	3%
2010	9	30%
not reported	5	17%
total	**30**	**100%**

Why not still growing	Count	%
not available	12	57%
no more in stock	2	10%
didn't receive it again	2	10%
did not succeed	1	5%
doesn't grow the crop	1	5%
no explanation	3	14%
total	**21**	**100%**

Crop	Variety names
maize	telora (Tloa), painted, large mais, Nicaragua
peanut	unidentified
cabbage	unidentified
beans	unidentified
banana	miske
pigeonpea	unidentified
sorghum	3 months, bois ponyet
tomato	ti josline

95. Lascahobas

Source of new varieties	Count	%
seed aid	13	100%
input store	0	0%
local market	0	0%
seed producers association	0	0%
family or friends	0	0%
total	**13**	**100%**

Year obtained	Count	%
2005	0	0%
2006	0	0%
2007	1	8%
2008	1	8%
2009	8	62%
2010	3	23%
not reported	13	100%
total	**0**	**0%**

Still growing	Count	%
yes	9	69%
no	4	31%
Total	**13**	**100%**

Why not still growing	Count	%
did not germinate	1	25%
not available	2	50%
no explanation	1	25%
total	4	100%

Crops	Count	%
beans	8	62%
banana	2	15%
pepper	1	8%
cabbage	1	8%
eggplant	1	8%
all	**13**	**100%**

Crop	Variety names
pepper	bouque
banana	bois noir, miske
cabbage	unidentified
beans	Apeco, arroyo loro, icta legero,
eggplant	unidentified

96. Léogâne

There are only two cases detailed at this site:

- Both from seed aid
- Both obtained in 2010 (and so still are using it)
- 1 Maize – var: 'the state'
- 1 pigeonpea – unidentified

97. Marigot

Source of new varieties	Count	%
seed aid	10	100%
input store	0	0%
local market	0	0%
seed producers association	0	0%
family or friends	0	0%
total	**10**	**100%**

Year obtained	Count	%
2005	0	0%
2006	0	0%
2007	0	0%
2008	1	10%
2009	1	10%
2010	8	80%
not reported	10	100%
total	**0**	**0%**

Still growing	Count	%
yes	10	100%
no	0	0%
Total	**10**	**100%**

Why not still growing	Count	%
Not applicable		

Crops	Count	%
maize	3	30%
beans	7	70%
all	**10**	**100%**

Crop	Variety names
maize	mazouca
beans	italigero (prob. ICTA Ligero), noir

Interestingly, recent seed aid is the sole source of new varieties mentioned at this site, and all recipients are still using this seed.

98. Petit Goave – PLAINS

Source of new varieties	Count	%
seed aid	49	79%
input store	4	6%
local market	4	6%
seed producers association	3	5%
family or friends	2	3%
total	**62**	100%

Still growing	Count	%
yes	59	95%
no	3	5%
Total	**62**	**100%**

Crops	Count	%
eggplant	1	2%
banana	2	3%
maize	34	55%
pepper	3	5%
cowpea	17	27%
sorghum	1	2%
taro	2	3%
tomato	2	3%
all	**62**	100%

Most introductions are recent (2010), which may explain the small numbers who have stopped using these new varieties. A large number of cases, compared to other sites, and wide range of crops and varieties. is.

Year obtained	Count	%
2005	2	3%
2006	0	0%
2007	2	3%
2008	1	2%
2009	2	3%
2010	55	89%
not reported	62	100%
total	**2**	3%

Why not still growing	Count	%
seed did not germinate	3	100%
total	**3**	**100%**

Crop	Variety names
eggplant	unidentified
banana	timalice, pouyak
maize	hugo, alizene, peinture, bresil, embrapa, rouge, br 106
pepper	bouque, pique
cowpea	blanc (white)
sorghum	3 months
taro	swa
tomato	napoli, yolo

99. Petit Goave – HILLS

Source of new varieties	Count	%
seed aid	15	63%
input store	1	4%
local market	1	4%
seed producers association	4	17%
family or friends	3	13%
total	**24**	**100%**

Still growing	Count	%
yes	20	83%
no	4	17%
Total	**24**	**100%**

Crops	Count	%
cabbage	1	4%
beans	10	42%
maize	7	29%
papaya	1	4%
pepper	2	8%
cowpea	1	4%
tomato	2	8%
all	**24**	**100%**

Fewer cases than the plains, but a wider range of sources, and recollections of introductions several years in the past. Most still using these varieties – many of which are the same varieties introduced in the lowlands as well

Year obtained	Count	%
2005	3	13%
2006	0	0%
2007	0	0%
2008	5	21%
2009	1	4%
2010	15	63%
total	**24**	**100%**

Why not still growing	Count	%
bad seed	1	25%
seed did not germinate	1	25%
everything was lost due to drought	1	25%
no explanation	1	25%
total	**4**	**100%**

Crop	Variety names
cabbage	kk cross
beans	bac, noir (black), bat403, ICTA
maize	hugo, alizene, peinture, bresil, embrapa, rouge, br 106
papaya	unidentified
pepper	bouque, pique
cowpea	blanc (white)
tomato	napoli, yolo

100. Verrettes

Source of new varieties	Count	%
seed aid	3	43%
input store	0	0%
local market	0	0%
seed producers association	4	57%
family or friends	0	0%
total	**7**	**100%**

Still growing	Count	%
yes	4	57%
no	3	43%
Total	**7**	**100%**

Crops	Count	%
maize	2	29%
rice	2	29%
peanut	3	43%
all	**7**	**100%**

Seed producers' associations are a source of new varieties here (though sample size is small). The range of crops is narrower than at other sites.

Year obtained	Count	%
2005	1	14%
2006	0	0%
2007	0	0%
2008	0	0%
2009	1	14%
2010	5	71%
not reported	7	100%
total	**1**	**14%**

Why not still growing	Count	%
just began	2	67%
unclear	1	33%
total	**3**	**100%**

Crop	Variety names
peanut	2 months
rice	la crete, TCS10
maize	the state

101. La Valée de Jacmel

Source of new varieties	Count	%
seed aid	42	89%
input store	0	0%
local market	0	0%
seed producers association	2	4%
family or friends	3	6%
total	**47**	**100%**

Still growing	Count	%
yes	39	83%
no	8	17%
Total	**47**	**100%**

Crops	Count	%
eggplant	2	4%
cabbage	1	2%
beans	29	62%
yam	2	4%
maize	5	11%
sweet potato	8	17%
all	**47**	**100%**

Seed aid dominates here, though not all from the current year. Beans dominates

Year obtained	Count	%
2005	0	0%
2006	0	0%
2007	1	2%
2008	10	21%
2009	16	34%
2010	19	40%
not reported	1	2%
Total	**47**	**100%**

Why not still growing	Count	%
no yield	2	25%
“losses”	1	13%
no water	1	13%
no comment	4	50%
total	**8**	**100%**

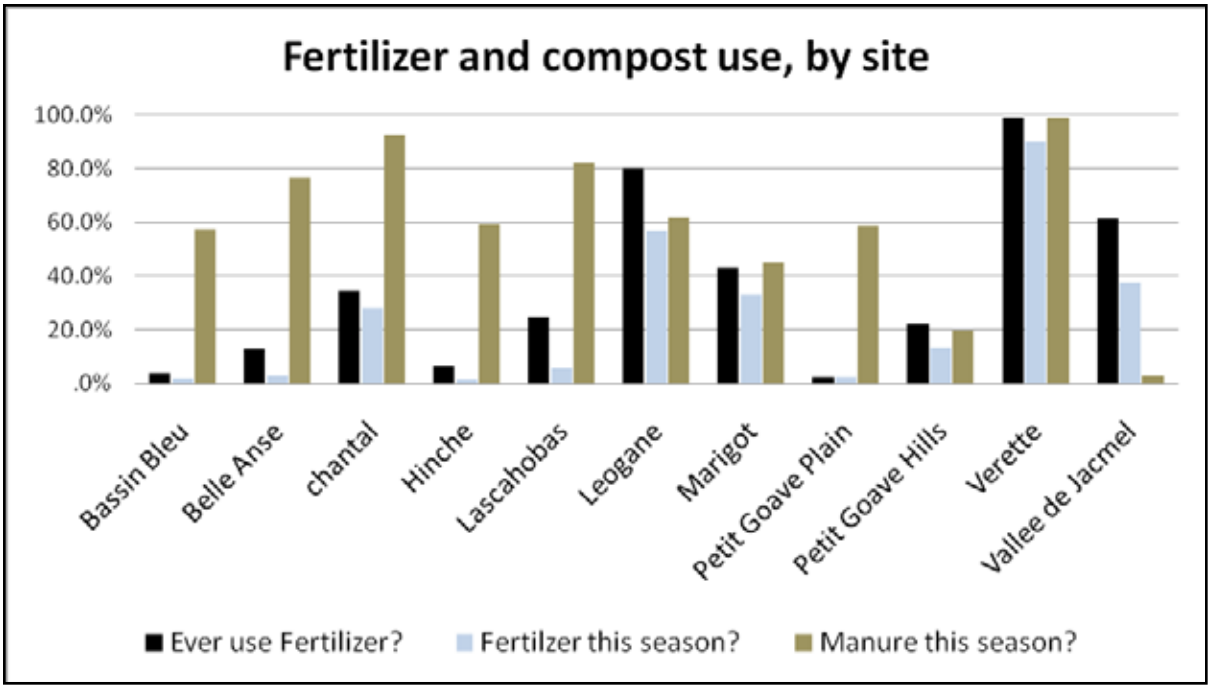
Crop	Variety names
eggplant	long purple
cabbage	unidentified
beans	arifi, arroyo, rouge, dpc 40, buenavista
yam	siguine, jaune
maize	2.5 months, hugo, alizene
sweet potato	mize malere, bois du feu, ti savien

8. FERTILIZER AND COMPOST USE

This analysis examines questions 4 through 7 in the survey form, highlighting the frequency and nature of fertilizer and compost use. Individual responses from 983 farmers were expanded to **4915** separate records, in order to capture multiple crops used.

102. Overview – fertilizer and compost use across sites

SITE		Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Petit Goave Plain	Petit Goave Hills	Verette	Vallee de Jacmel	Total
N		110	102	107	61	72	100	100	85	45	100	101	983
Ever use fertilizer? (%)	**Yes**	3.6	12.7	34.6	6.6	25.0	80.0	43.0	2.4	22.2	99.0	61.4	37.8
	Never	96.4	87.3	65.4	93.4	75.0	20.0	57.0	97.6	77.8	1.0	38.6	62.2
Use fertilzer this season? (%)	**Yes**	1.8	2.9	28.0	1.6	5.6	57.0	33.0	2.4	13.3	90.0	37.6	27.1
	No	98.2	97.1	72.0	98.4	94.4	43.0	67.0	97.6	86.7	10.0	62.4	72.9
Use compost this season? (%)	**Yes**	42.7	23.5	7.5	41.0	18.1	38.0	55.0	41.2	80.0	1.0	97.0	38.7
	No	57.3	76.5	92.5	59.0	81.9	62.0	45.0	58.8	20.0	99.0	3.0	61.3



Here we see dramatic differences between locations for fertiliser and compost[1] use. Chemical fertilizer has been used by many farmers in Léogâne, La Valée, Marigot, and especially Verette. However, usage is much lower in other sites, particularly Hinche, Bassin Bleu, Belle Anse and the lowlands of Petit Goave. Interestingly, manure (or compost) use is high in some of the same sites that fertilizer use is low: again, Hinche, Bassin Bleu, Belle Anse the lowlands of Petit Goave, Lascahobas, and Chantal. Only Léogâne and Verette have high proportions of farmers using BOTH fertilzer and manure.

Manure use is very low in the hills of Petit Goave and La Valée, the reasons for this should be explored – particularly in the former site, where input use of any kind was low. The discussion below of 'reasons why never used inputs' will start to explore this, but locally-based staff may wish to probe further.

Finally, there were three sites with a large difference between farmers ever using fertilizer and using it this season – which may suggest restrictions of cost or availability. These were Lascahobas, Léogâne, and La Valée. Again, this needs more explanation

Bassin Bleu and Hinche has very low input use in general. These regions have not traditionally received much emphasis from government fertilizer programs, but there may be other reasons for low input use as well, such as restricted labor in the former site, poor soil quality, isolation from markets, or general economic vulnerability in these sites.

1 The survey probed about organic inputs – manure and compost – together. In practice, most organic inputs are manure, mixed with straw (see table below). In this account, manure, compost, or manure/compost are all used to refer to organic inputs.

103. Years of fertilizer use

Those who answered yes to fertilizer use were asked how long they used it. The mean answers (with standard errors in brackets), and ranges, are below.

Site	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Petit Goave Plain	Petit Goave Hills	Verette	Vallee de Jacmel	ALL
N	**4**	**12**	**37**	**4**	**18**	**71**	**41**	**2**	**8**	**99**	**61**	**360**
Mean number of years	4.8 (1.9)	5.6 (1.0)	7.8 (1.2)	9.5 (7.8)	5.8 (1.4)	10.4 (1.1)	9.8 (1.4)	9.0 (4.0)	7.6 (2.3)	20.4 (1.1)	12.4 (1.2)	12.6 (0.5)
Maximum number of years	10	10	26	33	22	54	33	13	20	50	38	54

Some sites must be treated with caution due to very small number of farmers who have used fertilizer, who also have noted how many years they have used them. Very few sampled farmers have experience of fertilizer in Bassin Bleu, Hinche, or Petit Goave, while the majority do in Verette, La Valée, and Léogâne – and unsurprisingly, farmers there have had a longer experience with fertilizer. Verette farmers have a significantly longer experience with fertilizer than all other sites (except Petit Goave Plain); most of the other sites are not statistically different from each other in terms of average length of fertilizer use.

Even in sites with little fertilizer use, there are some individuals with long experience – at least a decade – such as in Hinche. There is likely to be great variation among farmers in these areas, with a few using fertilizer extensively. This will be examined below in the analysis of crops receiving fertilizer.

Only a few areas have very long experience, and historic (> 20 years ago) fertiliser promotions may have been regionally-confined, as Bayard and Shannon (2010) suggest has happened more recently. The longer experience in La Valée and Léogâne may reflect a longer period of cash-crops and vegetable production.

104. Crops that have received any input (fertilizer or manure/ compost) in past five years

CROP	Frequency	% of cases
Maize	393	29.7%
Beans	260	19.7%
Rice	110	8.3%
Bananas	108	8.2%
Sugarcane	65	4.9%
Sorghum	62	4.7%
Pigeonpea	48	3.6%
Potatoes	41	3.1%
Yam	36	2.7%
Cabbage	35	2.6%
Peanuts	26	2.0%
Carrots	21	1.6%
Peppers	20	1.5%
Tomatoes	15	1.1%
Cowpea	15	1.1%
Manioc	12	0.9%
Leeks	11	0.8%
Gombo	11	0.8%
TOTAL	**1322**	**100.0%**

Other crops include eggplant, peas, lalo, 'pois', papaya, onion, pois de souche, spinach, coffee, pois france.

Across all sites, the crops receiving either fertilizer or manure compost most often are maize, beans, rice, and bananas: these 4 crops alone account for two thirds of instances. Recall from above that only 27% of the farmers used fertilizer this season, and 38% manure / compost. The proportion using either input in the past five years will be in the range. As some farmers listed more than one crop (they could mention up to three), the total of 1322 mentions is greater than the total sample.

Note that the total use of fertiliser is concentrated on maize and market-oriented food crops.

105. Comparing fertilizer and manure/compost use by crop in past five years.

CROP	Fertilizer n	% of all fertilizer cases	Manure n	% of all Manure cases
Maize	247	32.1	230	28.4
Beans	142	18.5	196	24.2
Rice	109	14.2	1	0.1
Bananas	42	5.5	84	10.4
Sugarcane	59	7.7	22	2.7
Sorghum	8	1.0	60	7.4
Pigeonpea	14	1.8	39	4.8
Potatoes	26	3.4	22	2.7
Yam	14	1.8	36	4.4
Cabbage	24	3.1	20	2.5
Peanuts	12	1.6	17	2.1
Carrots	18	2.3	6	0.7
Peppers	10	1.3	13	1.6
Tomatoes	4	0.5	12	1.5
Cowpea	0	0.0	14	1.7
Manioc	5	0.7	10	1.2
Leeks	10	1.3	4	0.5
Gombo	9	1.2	4	0.5
TOTAL	**769**	**100.0**	**810**	**100.0**

Other crops include eggplant, peas, lalo, 'pois', papaya, onion.

This shows that, after maize and rice, different crops receive inputs from different sources. Rice, sugar cane, cabbage, leek, and gombo tend to receive chemical fertilizer more, while bananas, sorghum, pigeonpea, cow-peas, and peanuts tend to receive organic inputs.

106. Frequency of any input use (fertilizer OR manure/compost) in past five years by site for main crops

	SITE											
CROP	**Bassin Bleu**	**Belle Anse**	**Chantal**	**Hinche**	**Lascahobas**	**Léogâne**	**Marigot**	**Petit Goave Plain**	**Petit Goave Hills**	**Verette**	**Vallée de Jacmel**	**ALL SITES**
Maize	3	22	43	28	8	37	36	20	14	83	99	**393**
Beans	2	21	26	1	17	20	53	0	24	5	91	**260**
Rice	0	0	8	0	0	0	1	0	0	101	0	**110**
Bananas	14	12	4	6	6	24	17	7	3	2	13	**108**
Sugarcane	0	2	0	0	0	61	1	0	0	0	1	**65**
Sorghum	0	3	0	20	0	0	3	12	1	0	23	**62**
Pigeonpea	0	1	1	12	1	4	3	13	2	2	9	**48**
Potatoes	0	0	1	0	0	10	12	3	2	8	5	**41**
Yam	2	5	0	0	0	0	4	0	7	0	18	**36**
Cabbage	2	0	2	2	1	0	15	0	10	0	3	**35**
Peanust	0	8	0	1	13	0	0	2	2	0	0	**26**
ALL CROPS	**36**	**87**	**92**	**87**	**58**	**165**	**182**	**67**	**72**	**214**	**262**	**1322**

Several points jump out: 1) high fertilizer-using sites – Verette, and La Valée focus on a few crops (maize, + rice or beans, respectively). Sugar cane is added to this list in Léogâne. Elsewhere, maize and beans receive fertilizer in most sites – though not on maize in Lascahobas & Bassin Bleu, or beans in Bassin Bleu, Petit Goave (Hills), Hinche, or Verette (though beans receive inputs in la Valée – mostly organic). Bananas receive inputs across sites, but other crops do only in some sites – such as sorghum (La Valée, Hinche), yam (La Valée), cabbage (Petit Goave Hills and Marigot), potatoes (Léogâne and Marigot – as organic inputs in the latter site), and peanuts (Lascahobas). While crop emphasis varies by ecology, other reasons also affect fertilizer use, such as soil conditions, market opportunities, and external support. Specific uses need to be understood in local, and historical, context.

107. Comparing frequencies of fertilizer vs. manure/compost use across all sites for main crops

CROP		SITE											ALL SITES
		Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Leogane	Marigot	Petit Goave Plain	Petit Goave Hills	Verette	Vallee de Jacmel	
Maize	Fert.	0	11	37	4	4	30	18	2	1	83	57	247
	Compst	3	17	8	24	5	17	23	20	14	1	98	230
Beans	Fert.	0	10	18	0s	10	14	28	0	5	5	52	142
	Compst	2	16	7	1	10	10	35	0	24	0	91	196
Rice	Fert.	0	0	8	0	0	0	0	0	0	101	0	109
	Compst	0	0	0	0	0	0	1	0	0	0	0	1
Bananas	Fert.	3	2	3	1	3	18	4	1	1	2	4	42
	Compst	13	12	1	6	3	13	15	7	2	0	12	84
Sugarcane	Fert.	0	0	0	0	0	59	0	0	0	0	0	59
	Compst	0	2	0	0	0	18	1	0	0	0	1	22
Sorghum	Fert.	0	1	0	2	0	0	0	1	0	0	4	8
	Compst	0	3	0	18	0	0	3	12	1	0	23	60
Pigeonpea	Fert.	0	0	1	2	0	4	2	0	0	2	3	14
	Compst	0	1	0	10	1	1	2	13	2	0	9	39
Potatoes	Fert.	0	0	0	0	0	4	11	0	2	8	1	26
	Compst	0	0	1	0	0	8	3	3	2	0	5	22
Yam	Fert.	0	0	0	0	0	0	1	0	0	0	12	13
	Compst	2	5	0	0	0	0	4	0	7	0	18	36
Cabbage	Fert.	0	0	1	0	1	0	15	0	4	0	3	24
	Compst	2	0	1	2	0	0	2	0	10	0	3	20
Peanuts	Fert.	0	0	0	0	10	0	0	2	0	0	0	12
	Compst	0	8	0	1	4	0	0	2	2	0	0	17
ALL CROPS	**Fert.**	**6**	**27**	**72**	**9**	**40**	**134**	**109**	**6**	**16**	**214**	**136**	**769**
	Compost	**35**	**76**	**21**	**78**	**28**	**72**	**101**	**67**	**71**	**1**	**260**	**810**

In the table on the previous page, "Frequency of chemical fertilizer or manure/compost use for major crops across all sites," the base row reflects the bar chart on recent fertilizer or manure/compost use: manure/compost is more used than chemical fertilizer in Bassin Bleu, Belle Anse, Hinche, both Petit Goave sites, and La Valée; with the reverse in Verette, and Léogâne. Marigot uses both extensively. These patterns are similar for specific crops: e.g. the approach to maize inputs (synthetic or organic) reflects the general trend at each site, as do patterns in beans, where manure/compost is more popular for Belle Anse, the Hills of Petit Goave, and La Valée. Sites using manure/compost more apply this to bananas as well. The popularioty of a particular type of input reflects both supply-side factors (availability, targeted training), as well as demand (e.g. market-orientation of the site). For the other crops, input use is fairly location-specific (fertilizer on rice in Verette, manure/compost on sorghum in La Valée and Hinche).

The popularity of manure/compost in Belle Anse, the Hills of Petit Goave, and La Valée may reflect NGO action to promote it.

108. Type of fertilizer – this season

The types of synthetic fertilizer used this season, across all sites, are tallied in the table below. Note that farmers who apply fertilizer to more than one crop generally use the same type of fertilizer for each crop, which increases the counts for these individuals. Each count below represents an application to an individual crop.

'Complete' fertilizer dominates, though this may represent different mixes of NPK (not specified in the survey).

TYPE	Frequency	Percent
Complete	324	56.7%
Urea	165	28.9%
Complete + Urea	77	13.5%
Ammonium Sulphate	5	0.9%
Total	**571**	**100.0%**

With input sources, again the figures below reflect individual crops rather than respondents. What is striking is the importance of local purchase – whether in informal markets or through input boutiques, which take up 90% of all purchases.

109. Source of fertilizer – this season

Source	Frequency	Percent
local market	342	62.2%
input shop	152	27.6%
NGO	15	2.7%
Community seed producers' association	15	2.7%
Family /neighbors/ friends	10	1.8%
Government	6	1.1%
Reserves / Stocks	5	0.9%
Other	4	0.7%
Inter-governmental	1	0.2%
TOTAL	**550**	**100.0%**

110. Type of manure/compost – this season

Type of organic input	count	% of total
Straw only	219	30.5%
Other	186	25.9%
Horse + straw	89	12.4%
Field residue	85	11.8%
Pig + straw	51	7.1%
Cattle + straw	47	6.5%
Chicken + straw	35	4.9%
Cattle + horse/chicken + straw	7	1.0%
Total	**719**	**100.0%**

These tallies are across sites, and – as with chemical fertilizer – count specific cases by crop receiving organic inputs, rather than by individual. So one farmer may be responsible for multiple cases where they have listed several crops receiving organic inputs this season.

The dominant practice is to apply straw, or a mix of animal manure and straw. It is likely that many of the 'other' responses reflect multiple animal manures + straw, as a few individuals did specify different combinations of manure when specifying 'other'. The questioning did not attempt to find out volumes applied, as this is difficult for farmers to recall in a one-off survey (and may have been applied over several instances in any case). Also, the survey was unable to explore the level of skill involved in compost/manure applications, or probe farmers' knowledge levels here. Finally, the quality of straw or field residue (i.e. C:N ratios, whether residues were from leguminous sources) or proportions of manure/straw mixtures were not stipulated. Thus, while it is interesting to see that many farmers make use of organic inputs, these data on their own say little about the actual impact of for crop production – which is likely to be variable across farmers.

As Bayard and Shannon attest in the parallel study of fertilizer use in Haiti (2010), some NGOs have promoted improved practices around preparing and applying organic inputs, but this is knowledge-intensive, and likely to only occur in isolated pockets. These findings do not suggest that 'improved' composting practices (e.g. composted field residues, vermiculture, use of leguminous cover crops or alley crops, etc.) are widespread, though some may be occurring under 'other' or 'field residue'.

111. Source of manure / compost

SOURCE	Frequency	Percent
own	619	92.9%
Other	47	7.1%
Total	**666**	**100.0%**

The great majority of organic inputs come from farmers' own enterprises. However, 7% do come from other sources – probably purchase from other farmers, gifts, or in-kind exchange.

112. Comparing type of compost by source

Type of manure/ compost	source of compost		Total
	own	Other	
Horse	81	3	84
Chicken	19	16	35
Cattle	47	0	47
Straw only	208	9	217
Pig	44	6	50
Other	130	9	139
Field residue	80	4	84
Chicken and cattle	2	0	2
Horse and cattle	4	0	4
TOTAL	**615**	**47**	**662**

This cross-tabulation suggests that chicken manure is disproportionately sourced from off-farm. This may not be surprising, given the relative ease of transporting (and gathering) chicken manure. However, this also suggests limited effectiveness, unless very large quantities are collected and applied.

113. Type of manure compost used this season by site

	SITE											ALL SITES
TYPE of COMPOST	**Bassin Bleu**	**Belle Anse**	**Chantal**	**Hinche**	**Lascahobas**	**Léogâne**	**Marigot**	**Petit Goave Plain**	**Petit Goave Hills**	**Verette**	**Vallée de Jacmel**	
Straw only	37	32	5	41	9	39	11	29	13	0	1	**217**
Other	12	24	1	5	17	10	21	5	10	0	34	**139**
Horse	9	3	0	3	0	0	44	8	11	0	6	**84**
Field residue	20	1	4	2	0	1	5	6	3	0	42	**84**
Pig	5	0	0	0	0	0	4	0	0	0	41	**50**
Cattle	4	1	1	12	0	5	9	3	2	1	9	**47**
Chicken	0	0	0	0	0	0	7	20	3	0	5	**35**
Chicken/Horse and cattle	0	0	0	1	0	3	0	2	0	0	0	**6**
TOTAL	**87**	**61**	**11**	**64**	**26**	**58**	**101**	**73**	**42**	**1**	**138**	**662**

Bearing in mind that these data may repeat within an individual farmer, they show a few trends. Straw is widely used, though especially in Hinche, Léogâne, Petit Goave (plain) and Belle Anse. Horse manure is especially popular in Marigot, while field residues are most used in La Valée and Bassin Bleu. Pig manure, cattle manure and chicken manure only have wide use in La Valée, Hinche, and Petit Goave, respectively. Within sites, most manure/compost use is concentrated on a limited number of sources, presumably reflecting livestock presence in specific sites.

114. Reasons for never using fertilizer

For those who never used fertilizer, this table shows the frequency of their reasons why, by site

	SITE											ALL SITES
Reason why never used fertilzer	**Bassin Bleu**	**Belle Anse**	**Chantal**	**Hinche**	**Lascahobas**	**Léogâne**	**Marigot**	**Petit Goave Plain**	**Petit Goave Hills**	**Verette**	**Vallée de Jacmel**	
Too expensive	29	18	23	11	30	10	39	16	8	1	16	**201**
Unavailable	30	34	15	24	17	1	7	32	18	0	8	**186**
Not necessary	17	24	19	3	0	3	7	27	5	0	5	**110**
Don't know how use / benefit	22	5	2	14	2	0	2	6	1	0	2	**56**
Other	2	3	2	4	2	1	1	1	0	0	2	**18**
Soils too poor	4	4	0	1	2	0	0	1	0	0	2	**14**
TOTAL	**104**	**88**	**61**	**57**	**53**	**15**	**56**	**83**	**32**	**1**	**35**	**585**

Unsurprisingly, cost jumps out as the most-cited reason for never using fertilizer. However, availability is also oft-cited, particularly so for sites with very little fertilizer use – Bassin Bleu, Belle Anse, Petit Goave Plain, and Hinche. Looked at another way, the sites where very few mention availability are also the sites favoured for input supply in agricultural policy – the lowland plains. For Bassin Bleu and Hinche, lack of awareness was also a common reason given for never using fertilizer, another indication of how particular agro-ecologies have not featured in national input promotional campaigns.

Gender and input use

a. Fertilizer in past 5 years, by major crop:

To understand these tables, it helps to note that the gender of HH heads is roughly 75%/25% male/female.

The first table below shows crops over past 5 years that have received synthetic fertilizer, by site and gender of HH head. Several trends are apparent:

CROPS: Given the gender mixes, women=headed HHs apply fertilizer to their crops disproportionate to their overall presence in the sample for **maize, Pigeonpea**, and **sugar cane** (the latter occurring entirely in Léogâne, while pigeonpea is a small sample size). For other major crops, banana, rice, and peanuts have male / female headed HHs applying fertilizer roughly in proportion to the total numbers of households in the sample. For sorghum, potatoes, yams, and cabbage, men disproportionately apply fertilizer.

SITES: Only in Léogâne, Verette, and La Valée are there more than 20 women-headed households who have applied fertilizer in the past five years.

b. Manure/compost in past 5 years, by major crop

The second table below shows use of manure/compost over the past five years, by crop, site and gender.

CROPS: across sites, women-headed households apply organic inputs disproportionately (compared to men) to **bananas,** and **sugar cane.** For maize, beans, pigeonpea, and potato, they are roughly in line with the wider sample (3/1 mean/women). Again, a lower proportion of women-headed households apply organic inputs to sorghum, yam, cabbage or peanuts.

SITES: Again, a larger number of women-headed households have applied organic inputs in Léogâne and La Valée, as well as Marigot and Belle Anse.

c. Fertilizer source

This third table shows the sources most frequently utilized by male- and female-headed households to acquire fertilizer.

115. Fertilizer use over past 5 years

		SITE											ALL SITES
CROP	Household head	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Léogâne	Marigot	Petit Goave Plain	Petit Goave Hills	Verette	Vallée de Jacmel	
Maize	Male	0	9	31	3	1	15	14	2	1	59	48	183
	female	0	2	5	1	2	15	4	0	0	21	9	59
Beans	Male	0	8	16	0	8	6	23	0	5	5	44	115
	female	0	2	2	0	2	8	5	0	0	0	8	27
Rice	Male	0	0	5	0	0	0	0	0	0	73	0	78
	female	0	0	2	0	0	0	0	0	0	23	0	25
Bananas	Male	3	2	1	0	3	12	4	1	1	1	3	31
	female	0	0	2	1	0	6	0	0	0	1	1	11
Sugarcane	Male	0	0	0	0	0	37	0	0	0	0	0	37
	female	0	0	0	0	0	22	0	0	0	0	0	22
Sorghum	Male	0	1	0	2	0	0	0	1	0	0	3	7
	female	0	0	0	0	0	0	0	0	0	0	1	1
Pigeonpea	Male	0	0	1	2	0	0	0	0	0	2	3	8
	female	0	0	0	0	0	4	2	0	0	0	0	6
Potatoes	Male	0	0	0	0	0	1	10	0	2	6	1	20
	female	0	0	0	0	0	3	0	0	0	1	0	4
Yam	Male	0	0	0	0	0	0	0	0	0	0	11	11
	female	0	0	0	0	0	0	1	0	0	0	1	2
Cabbage	Male	0	0	0	0	0	0	15	0	4	0	2	21
	female	0	0	1	0	1	0	0	0	0	0	1	3
Peanuts	Male	0	0	0	0	6	0	0	2	0	0	0	8
	female	0	0	0	0	3	0	0	0	0	0	0	3
ALL CROPS	**Male**	**6**	**23**	**57**	**7**	**26**	**76**	**91**	**6**	**16**	**155**	**115**	**578**
	female	**0**	**4**	**13**	**2**	**11**	**58**	**15**	**0**	**0**	**49**	**21**	**173**

116. Manure/compost use over past 5 years

		SITE											
CROP	Household head	Bassin Bleu	Belle Anse	Chantal	Hinche	Lascahobas	Léogâne	Marigot	Petit Goave Plain	Petit Goave Hills	Verette	Vallée de Jacmel	ALL SITES
Maize	Male	2	11	8	20	4	10	18	17	12	1	74	**177**
	female	1	5	0	3	1	7	5	3	2	0	24	**51**
Beans	Male	2	11	6	0	9	6	23	0	21	0	67	**145**
	female	0	4	1	1	1	4	12	0	3	0	24	**50**
Rice	Male	0	0	0	0	0	0	1	0	0	0	0	**1**
	female	0	0	0	0	0	0	0	0	0	0	0	**0**
Bananas	Male	10	9	0	1	3	6	13	4	1	0	8	**55**
	female	1	2	1	4	0	7	2	3	1	0	4	**25**
Sugarcane	Male	0	0	0	0	0	10	1	0	0	0	1	**12**
	female	0	1	0	0	0	8	0	0	0	0	0	**9**
Sorghum	Male	0	1	0	16	0	0	2	10	1	0	19	**49**
	female	0	1	0	1	0	0	1	2	0	0	4	**9**
Pigeonpea	Male	0	0	0	9	1	0	1	11	2	0	6	**30**
	female	0	1	0	1	0	1	1	2	0	0	3	**9**
Potatoes	Male	0	0	1	0	0	3	2	3	2	0	4	**15**
	female	0	0	0	0	0	5	0	0	0	0	1	**6**
Yam	Male	2	4	0	0	0	0	3	0	5	0	15	**29**
	female	0	1	0	0	0	0	1	0	2	0	3	**7**
Cabbage	Male	1	0	1	1	0	0	2	0	9	0	2	**16**
	female	0	0	0	1	0	0	0	0	1	0	1	**3**
Peanuts	Male	0	6	0	1	3	0	0	2	2	0	0	**14**
	female	0	2	0	0	1	0	0	0	0	0	0	**3**
ALL CROPS	**Male**	**27**	**52**	**19**	**61**	**25**	**37**	**74**	**55**	**62**	**1**	**196**	**609**
	female	**3**	**19**	**2**	**14**	**3**	**35**	**24**	**12**	**9**	**0**	**64**	**185**

117. Fertilizer source

Source	Male-headed	Female-headed	TOTAL
local market	248	85	333
input shop	115	32	147
NGO	15	0	15
Community seed producers' association	15	0	15
Family /neighbors/ friends	9	1	10
Government	4	2	6
Reserves / Stocks	4	1	5
Other	4	0	4
Inter-governmental	0	1	1
TOTAL	**414**	**122**	**536**

Women-headed households make use of local market to purchase fertilizer in equal proportion to their presence in the sample, though slightly less so for input shops. There were no women-headed households obtaining fertilizer from NGOs, or community groups, and – perhaps surprisingly – only one woman-headed household obtained fertilizer from her social network.