



**WHAT ONE
NEEDS
TO KNOW
ABOUT
THE CLEANFARMS GHANA
PROJECT**



Genesis of CleanFarms Project in Ghana:

Why this project?

As responsible suppliers of pesticide products, CropLife Ghana in collaboration with the CleanFarms Project is working to reduce the potential risks associated with obsolete pesticides that may over time deteriorate. Old and unusable pesticides pose a potential risk to the environment, humans and to animal health, through direct contact or leaching into water sources. Currently there are no suitable in country options for the safe disposal of obsolete products.

Obsolete pesticides include herbicides, fungicides, and insecticides, including insecticides for veterinary and health applications that can no longer be used because of the following;

1. The product has expired;
2. No EPA Registration and Batch numbers;
3. Damaged packaging, and label no longer readable;
4. Product no longer wanted and never likely to be used on the farm or anywhere.



Obsolete pesticides (1) and used empty containers found in warehouses in Kumasi

What the project hopes to achieve?

The CleanFarms project is a two phase project. The first phase which is now completed was to identify all potential sources of obsolete pesticides and to deliver a national inventory with a prioritised safeguarding action plan. The second phase of the project is to source additional funds to enable the safeguarding action plan to be completed

The CleanFarms Project began in Ghana in March 2008 with training on inventory and risk assessment for 13 officers from the regulatory agencies and the plant sciences industry. Pilot inventory exercises were carried out in August 2008 for the trained officers in Greater Accra and Eastern Regions respectively.

The activity was followed by the signing of a memorandum of understanding (MoU) between the Government of Ghana, represented by the Ministry of Food & Agriculture (MoFA); and CropLife

International, represented by CropLife Ghana (CLG) in August 2009. Following the signing of the MoU the project continued to complete the national inventory of public and private sector stores thought to be holding obsolete pesticides. The inventory process registered about 70 MT of obsolete pesticides. Already in 1999-2000, an FAO sponsored inventory had identified about 90 MT. This brings to a total of about 160 MT of obsoletes in Ghana.



Risk Assessment Training sessions for selected officers at Paloma Hotel

The Outreach Exercise:

An outreach exercise began in March 2010 to identify previously unknown stocks of obsolete pesticides held in the private sector (the distribution chain and farmers), after a launching ceremony to formerly inform the general public. This also coincided with a sensitization program to reach all District and Regional MoFA and EPA officers respectively to understand the objectives of the project for easier implementation.

During the outreach exercise, a total of over 70 MT of obsolete products and over 6 MT of used empty pesticide containers were recorded.



Mr. Pwamang , EPA/ CCMC (1) and Mr. Suglo, MoFA/PPRSD (2) giving their address at the CleanFarms launching

What has happened to the registered products?

In some instances where stocks of highly hazardous obsolete pesticides were found, emergency safeguarding practices were put in place to avoid any further spillages/ contamination. An example of such occurred at the Ghana Cotton Companies site in Tamale. Obsolete products were also collected from the MoFA offices at Pokuase. The CleanFarms project is currently constructing a temporary holding facility at the Pokuase PPRSD Office plot to properly store the hazardous stocks to be collected across the country.



Safeguarded hazardous products at Pokuase (1) and GCCL, Tamale (2)

Pilot Container Management Program:

In view of the quantities of used-empty pesticide containers registered in the country, a pilot container management program has been instituted by CleanFarms in the Ashanti Region, Ejura Sekyeredumase District to be specific. The choice of Ashanti Region was due to the fact that, it recorded the highest number of empties during the outreach exercise.

As part of the initiation process, the team visited the district to meet the District Chief Executive, MoFA officials and representatives of farmer organizations to formerly inform them about the program. The following has also been planned for the successful implementation of the exercise (which is the first in the sub-saharan Africa by CropLife International);

1. Construction of special container-disposal bins to be placed at vantage points within farming communities for farmers to use;
2. Production of training materials on how to dispose of used-empty containers properly (Triple Rinsing);
3. Conducting of cascade training programs on Safe-Use and proper disposal of used-empty containers for the farming community;
4. Collaboration with ZOIL/Zoomlion Waster Management Services for collection, rinsing, crushing and disposal of the containers at a well managed landfill site or through suitable recycling schemes. Recycled plastics cannot be used for container food or pharmaceutical products.



Pose with the DCE of Ejura Sekyere Edumase in her office

Involving relevant stakeholders for the success of the project:

After the analysis of results from the outreach and inventory exercise, it became evident that the quantities of products from CropLife International member companies were far less than that of other non-CropLife member companies. As previously mentioned, CropLife International will pay for the safeguarding and disposal of its member materials and will seek co-funding for the safeguarding and disposal of all other obsolete pesticides. The estimated cost of safeguarding and disposal is between €3 and €3.5 per kilogram.

To be successful, all stakeholders must be willing to support the project to remove the legacy backlog of obsolete pesticides and containers, and also to project into the future in terms of sustainable container management schemes, and methods to reduce the risk of further build up of obsolete pesticides.



Meeting with local pesticide importers in Kumasi for their views on the project in Ghana

METHYL BROMIDE ISSUE:



As far back as October 2010, just when the outreach program initiated by the CleanFarms Program was rounding up across the country, a serious situation of methyl bromide leakage was reported to the CleanFarms Office. These gaseous substances, which were already stored at the Pokuase PPRSD Headquarters before the CleanFarms program took off, were immediately reported to the Coordinator of the CleanFarms Ghana Project, who in turn reported to the CropLife International for immediate action.

An initial assessment was carried out across the country to identify and take inventory of these gaseous methyl bromide cylinders in order to check their states. 32 cylinders were identified in total. 9 of these are in the PPRSD Office in Pokuase, while the remaining 23 are located at a farm house in Ada.

Based on an urgent request, CropLife International has approved the safeguarding of the cylinders at a cost of over €60,000 (Sixty Thousand Euros), and has contracted a team of experts from the United States of America and Great Britain to come to Ghana and to cooperate with the Ghanaian regulators to safeguard the methyl bromide cylinders as early and quickly as possible. In this regard, the following landmarks have so far been achieved;



- i. The exercise has been conducted smoothly in Pokuase with the arrival of the experts from the USA and the UK;
- ii. The gases have been transferred from the 43 MBr cylinders and put into 4 huge Cylinders (1 Tonne Each) and kept at the Pokuase storage facility;

1.



TEMPORARY STORAGE FACILITY:



The construction of the temporary storage facility at the PPRSD Office in Pokuase to house safeguarded materials of the CleanFarms Ghana Project is about 55% complete. Appeals have been made to CropLife Ghana member companies and also local importers of agrochemicals in the Ashanti Region (specifically) to assist in co-funding the completion of the storage facility. The completion of this facility would kick-start the collection and safeguarding of the obsolete products in the country.

A planned Safeguarding training has been scheduled for the 1st week of July 2011 to train officers of ZOIL, the industry and regulators on appropriate safeguarding skills. This would enable the officers carry out the exercise after the CleanFarms Project has ended.

A total amount of about €250,000 is estimated for this exercise, of which CropLife International is contributing €150,000. However, CropLife International's contribution is envisaged to cater for only obsolete products from CLI member companies only, therefore the need for support and co-funding from other well meaning institutions and agrochemical companies to contribute for the total wholesale collection and safeguarding of all materials irrespective of the origin.



To date, CropLife Ghana member companies have contributed about US\$40,000 for the completion of the temporary storage facility and other relevant activities under the CleanFarms Ghana Project.

We therefore use this platform to appeal to more stakeholders and other importers of agrochemicals to contribute to this exercise for the cleaning and proper safeguarding of obsolete pesticides in our environment, and also to sustain this program even after the end of the CleanFarms Ghana project.

2. PILOT CONTAINER MANAGEMENT PROGRAM:



The pilot container management program to be initiated in the Ejura district of the Ashanti Region is far advanced. Initial meeting with the DCE, MoFA Officers and other stakeholders in the district have already taken place as at last year 2010. We have embarked on another sensitization exercise to the district to actualize the following:

- i. Date for the launching of the pilot exercise
- ii. Number of container collection bins to be used
- iii. Number of communities to be involved in the program initially
- iv. Begin radio announcements to sensitize the populace in the district about the program;

Sample of the container collection bin has already been constructed and approved by CropLife International.

In collaboration with ZOIL/ZoomLion Waste Company and Qualiplast Limited, it is been realized that these treated containers could be palletized and eventually recycled into other products such as fence posts, and other non-food products for the benefit of the society. Qualiplast Limited has indicated to the project that it is in the position to recycle these products into many other non-food items which would be beneficial to farmers and the general public.

Another possibility is the incineration of these plastic containers at a UN/CLI approved incineration site to be constructed in the near future by ZOIL/ZoomLion Waste management in the country.

Pilot Safeguarding Training Exercise:



The pilot safeguarding training exercise for Ghana was undertaken from the 4th-8th of July 2011 at the Airport West Hotel, Accra. 14 participants took part in this training program. The training comprised of 2 days indoor, and 3 days field exercises. The field exercises were conducted at the Pokuase Temporary Storage Facility (TSF). The facilitator for the training was Nick Morgan from VEOLIA Environmental Services, an International Waste Management Organization. David Laycock, the Project Manager was also on hand to make sure the program progresses according

to plan.

The 2 days indoor-training was quite packed with detailed handouts and exercises for each participant. The topics treated were as follows;

1. Obsolete Pesticides
2. Health and Environmental Hazards
3. Personal Protective Equipments
4. The Safeguarding Process
5. Selection & Management of collection centres
6. Transport of obsolete pesticides
7. Manual handling

Field Exercises:

The team conducted a 3-day field exercise at the Temporary Storage Facility (TSF) at the PPRSD Office in Pokuase. These exercises were conducted effectively and efficiently with the use of proper

protective equipments and other relevant logistics procured by the project for the exercise in the country.

The entire exercise for the first day was filmed by the Information Service Directorate (ISD) of the Ministry of Food & Agriculture through the efforts of Mr. Vesper Suglo, Director of PPRSD/MoFA. During the 3-day field exercise, the following were successfully safeguarded.

No.	Product	Drum/Bag	Total Weight
1	Diazol	2 Drums x 205 L	410 L
2	Dual	1Drum x 35 L	35 L
3	Decontaminated Water	1 Drum	-
4	Contaminated Waste Packaging Materials	3 Drums	-
5	KLERAT/Actellic Super/Copper	1 Drum	-
6	Actellic Supper/Basamid/Sumithion	1 Drum	-
7	KLERAT	1 Drum	-
8	Leaking Dual & Waste Packages	1 Drum	-
9	Actellic Supper/Dithane	1 Bag	-
10	Empty unwashed Diazol & Dual containers	1 Bag	-
11	Dithane	2 Bags	90
12	Actellic Supper	1 Bag	300 Kg
13	Actellic Supper/Actellic Dust/Sumithion	1 Bag	300 Kg

Apart from these products (listed above) that were successfully safeguarded and properly placed in the storage facility, other products that could not be decanted were neatly packed away into containers and drums and placed at identifiable location in the storage facility for future decanting.





Patronage of Temporary Storage facility:

The TSF in Pokuase is currently storing obsolete stocks collected from Calli Ghana and Ghana Oil Palm Development Company (GOPDC) warehouses respectively. Eventually, products from Wienco Ghana Limited, Chemico Limited and Dizengoff Ghana Limited would be collected and safeguarded appropriately in the facility. These materials being stored at the TSF have been duly paid for by the companies involved.



Pilot Container Management Training exercise:

In 2010, a nation-wide inventory and outreach program was carried out to ascertain the quantities of obsolete and used-empty pesticide containers abandoned in both governmental and private warehouses and stores. The exercise was carried out in collaboration with MoFA District Officers and Regional EPA Officers. Out of the over 6 tonnes of empty containers recorded throughout the country, Ejura-Sekyeredumase district of the Ashanti Region alone recorded over 2 tonnes. It was in this direction that a 3-month pilot container management program was earmarked for the district.

As part of the commitment of CropLife/CleanFarms Ghana Project, the team visited the district to meet the District Chief Executive, MoFA officials and representatives of farmer organizations to formally introduce the concept of the pilot program in the district.

TRAINING ACTIVITY:

Before the commencement of the training program for the farmer-leaders and extension agents in the district, the following arrangements were put in place;

- Construction of 12 (proto-type) special container-collection bins to be placed at vantage points within 10 selected farming communities in the district;
- Production of training materials on effective triple rinsing, safe-uses of agrochemicals and efficient disposal of used-empty containers;
- Developed a Memorandum of Understanding (MoU) with ZOIL/Zoomlion Waste Management Services for collection, rinsing, crushing and disposal of the containers at a well managed landfill site or through suitable recycling schemes.

5. **TRAINING:**

Over 40 participants including Extension Officers of MoFA and Farmer-leaders from 30 selected farming communities participated in the exercise. Topics discussed were as follows;

- CropLife Ghana and its membership;
- What CleanFarms Ghana is about;
- The objective of the entire training exercise;
- Why the Pilot Container Management Program at Ejura District;
- Effective Triple Rinsing;
- Efficient disposal of used empty container into container bin;
- Effective and efficient use of agrochemicals (Responsible Use)
 - Correct use of PPEs
 - Why one should wear PPEs
 - Ways in identifying counterfeited agrochemicals/fertilizers

The facilitators for the training were;

1. Mrs. Gifty Boakye - Regional Officer, PPRSD/MoFA , Ashanti Region
2. Mr. Bob Adjakloe - Campaign Manager, CleanFarms Ghana Project
3. Mr. F. B. Boampong - Program/Data Manager, CropLife/CleanFarms Gh.
4. Mr. L. Krampa - District Director, MoFA
5. Mr. Eric Chikata - District Officer, PPRSD/MoFA

At the end of the training, each participant was given 2 posters on Triple Rinsing, and a CropLife/IFDC Handout on Effective and efficient Responsible Uses of agrochemicals.

Pictures:



Safeguarding Exercises at the TSF:

A second safeguarding exercise was undertaken at the TSF in Pokuase from the 30th August 2011 to the 2nd September 2011. This exercise was primarily for the following;

1. Create enough storage space at the TSF by repacking products;
2. Decant liquid materials into approved barrels for proper storage;

A total of 625 Litres of Omethoate and Dimethoate products were decanted into 200 Litre barrels. Currently a total of 20 barrels have been used, comprising of 12 Opened-Head Barrels; and 8 Closed-Head Barrels. This exercise was under the supervision of the Project Manager, David Laycock. Trained officers from Zoil/Zoomlion Waste Company, CleanFarms Ghana Secretariat and GAABIC were involved in the exercise.

Safeguarding Exercise at Northern Ghana (13-16 September 2011):

The CleanFarms Ghana Project has chalked another successful campaign in the Northern parts of Ghana by collecting and safeguarding obsolete chemicals identified and recorded in 3 governmental bodies. These are as follows:

- | | | |
|---|---|--------------|
| 1. Ghana Cotton Company Limited, Tumu | - | 175 Litres |
| 2. Ghana Cotton Company Limited, Tamale | - | 3,520 Litres |
| 3. Bontanga Irrigation Site, Tamale | - | 1,045 Kg |

The exercise was undertaken in collaboration with ZOIL/Zoomlion Waste Management Company, Plant Protection & Regulatory Services Directorate (PPRSD) of the Ministry of Food & Agriculture (MoFA) and the Environmental Protection Agency (EPA).

Pictures of safeguarding exercise:



Safeguarding at GCCL, Tamale



Endosulphan Products (Solid)



Tamale Safeguarding on-truck @ Bontanga Site with section of study tour group



On-truck safeguarding



Bontanga Irrigation Site



Packing of products into the truck



Loading truck to Pokuase TSF

In summary, the exercise was a great success with no significant accidents recorded. This factor is due to the effective risk assessments conducted at each location and the appropriate protective equipments used.

The highlight of the exercise was the visit by a group on study tour from CropLife Nigeria and Cameroun to have a real experience with the safeguarding exercise. They were pleased at the end of the day with the knowledge they have acquired and pledged to implement same in their respective countries.

Container Management Workshop:

A workshop was held at the Airport West Hotel, Accra to discuss the sustainability of the container management program being currently implemented by the CleanFarms Ghana Project at the Ejura Sekyeredumase District of the Ashanti Region. Among the outcomes reached were the following;

1. Institution of a levy system by EPA in collaboration with CropLife Ghana;
 - This system would enable all importers of agrochemicals to pay a special levy at the point of registration.
2. Possible recycling of empty pesticide containers in collaboration with Cyclus Recycling into non-domestic items;
3. Eminent legalization of the draft technical guide of EPA to make pesticide disposal the sole responsibility of the manufacturer, importers and dealers (in the case of Ghana) , etc and be included as a clause in the pesticide registration and licensing processes.



Meeting with Minister of Food & Agriculture

Prior to the stakeholder's workshop, some members of the Project Leadership Team (PLT) of the CleanFarms Project paid a courtesy call on the Minister of Food & Agriculture, Hon. Kwesi Ahwoi, to brief him on the progress of the CleanFarms Project so far and the need for the government to assist the project and stakeholders in addressing issues of container management in the country. The Minister, indeed praised the project and promised to assist in any way possible for the best results in the country. He also tasked the Director of Plant Protection & Regulatory Services (PPRSD), Mr. Vesper Suglo to be critical on the issues of pesticides registrations to check issues of counterfeiting and adulteration.



Safeguarding Exercises conducted from January 2012:

1. Chemico Limited (24 January – 02 February 2012)

A total of about 105 drums of obsolete Pirimiphos Methyl Tech totalling about 13,000 Kg was safeguarded from Chemico Limited in Tema and transported to the CleanFarms Temporary Storage Facility at Pokuase. The exercise was undertaken in collaboration with GAABIC and ZOIL under the supervision of an official from VEOILIA, an international environmental company based in the United Kingdom.



2. Ejura Farms and District:

4 drums of Triflurex 48 were safeguarded and transported safely to the TSF in Pokuase for proper safekeeping and storage from the Ejura Farms in the Ejura Sekyeredumase district of the Ashanti Region. The exercise was conducted by a team from Veoila, CropLife Ghana and MoFA.

In addition to this, 12 empty-container bins were emptied into maxi-poly bags. A total of over 170 bags empty-pesticide containers (predominantly 1 litre containers) were collected. This is the initial emptying of the container-bins from the pilot project area by the project itself. This total includes 165 bags of empty containers and 5 Bags of empty sachets/foils.



Directorate of Crop Services of MoFA Stores, Accra:

A total of about 900 Kg of Actellic dust sachets were neatly packed into 3.5 heavy FIBC Bags and transported to the TSF in Pokuase for proper storage. This was part of obsolete stocks identified during an outreach inventory exercise by the project in 2009.



Before safeguarding



After Safeguarding

Meetings with Kenyan counterparts:

The Data Manager had the opportunity to meet with officials of CropLife Kenya and CleanFarms Kenya during a recent visit to the country from 15-17 March 2012 on a CropLife Communication Program. The meeting was held to appraise each other of the CleanFarms Project in the respective countries. CropLife Ghana also had the opportunity to learn at first hand, the great collaboration between the Kenyan Ministry of Food & Agriculture and the CropLife Kenya Industry in the implementation of activities.

The Data Manager of CleanFarms Ghana, Frederick B. Boampong, also had the opportunity to meet with the Director of Pest Control & Registration Board of Kenya in her office. The meeting also again emphasised the close collaboration between the industry and the Board in the implementation of national activities.

The last meeting was held at the CropLife Kenya offices with Professor Vasey Mwaja, the Chairman of CleanFarms Kenya and the Data Manageress, Irene Gakuru. In this meeting, I took the opportunity to highlight Ghana's progress in the container management program. We exchanged useful lessons in this regard for the benefit of our respective project. In all these meeting, the Chairman of CropLife Sudan was in attendance to also learn about the Cleanfarms Project and the possibility of initiating a similar program in Sudan.



Transportation to Cyclus Recycling Plant:

The first batch of empty pesticide containers has been transported to the Cyclus Recycling Plant, at Komenda to be recycled. The empty pesticide containers which are mostly HDPE type bottles, were processed (triple-rinsed and cleansed with chemical detergents) before being packed and transported to the recycling plant where it would also go through another thorough processing. The empty pesticide containers would be processed into floor tiles and roofing sheets.

Some organizations like the Malaria Vector Control Program, in Tamale and Smart Farms Plantation in Ejura have expressed profound interest in our Container Management program. More organizations are required to partner CropLife Ghana in expanding the container management program nationwide especially after the pilot-phase in Ejura by the end of October 2012.



Safeguarding from Partner Institutions:

Over 40 MT of obsolete pesticides have been identified at Cocobod warehouses, Cocoa-Input Warehouses, Eve-Lyn Farms and Calli Ghana Limited. Out of these, over 10MT have been safeguarded and safely stored at the Pokuase TSF. At the TSF, over 35 drums have been put into over-drums for proper storage and collection by FAO.



The TSF is now currently holding stocks of over 150 MT of obsolete pesticides from both the public and the private sector. An official of FAO have already inspected the TSF and given his approval. He hopes to advocate for the TSF model to be replicated across the West African sub-region.

Pictures of the TSF as at April 2013

CleanFarms Ghana Scretariat:

Mr. David LAYCOCK	-	PROJECT MANAGER
Mrs. Juliet BINEY	-	FMR. LOCAL PROJECT COORDINATOR
Mr. Frederick B. BOAMPONG	-	DATA MANAGER
Mr. Bob ADJAKLOE	-	TSF MANAGER

Board Members of Project Leadership Team (PLT):

Mr. Vesper SUGLO	-	DIRECTOR, PPRSD/MoFA
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