



**POSTCOSECHA**

# **METAL SILOS**



## **Manual for Manufacturing Metal Silos for Grain Storage**

Swiss Agency for Development and  
Co-operation / SDC

Second Edition; November 2008

# POSTHARVEST AMERICA

Artisan's Name: \_\_\_\_\_

This manual is the result of 30 years  
of POSTCOSECHA experience in  
making metal silos in Central America, Cuba, Perú, Paraguay, Kenya, and  
other countries where POSTCOSECHA supported activities for grain storage.

Elaboration

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<http://www.deza.admin.ch>  
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# Preface

Since 1980 SDC has sponsored the “POSTCOSECHA” postharvest loss reduction Programme for maize and beans in Central America. With lasting impact: The massive spread of simple metal silos manufactured by local tinsmiths has enabled smallholder farmers to considerably reduce crop loss and enjoy much greater food security. At the same time, the activity created rural businesses, which in turn have generated employment.

Be it in Honduras or Guatemala, Nicaragua or El Salvador: The silver grey cylindrical silos sponsored by the SDC’s POSTCOSECHA Programme are dotting the Central American landscape. POSTCOSECHA, the Spanish term for “post-harvest”, has become the label of the metal silo approach in helping to ensure that agricultural products can be stored for personal consumption or later sale. Metal silos are easy to handle and come in various sizes. Any farmer who has a silo on his farm can eat maize or beans all year round and is free to decide when to bring his surplus harvest to market. POSTCOSECHA introduced and scaled-up massively the new storage technique in four countries from 1980 to 2003. By 2007, there were over half a million silos being used in these four countries. Moreover, the silo manufacturing activity is a welcome additional source of income for nearly 900 farmer tinsmiths: when they are not working in the fields, they spend their time producing silos. Farmers in Central America nowadays are able to save an estimated 50,000 tonnes of agricultural products from crop loss each year, which amounts to about USD 12 million in preserved value.

The present manual is the result of a revision of the manuals prepared in 1985 and 1991. Neither design nor technical specifications have been changed since 1984, but a digitalization of all manual components was organized in 2008. Practical experience has made it possible to improve the technical and didactic contents of the manual, especially concerning the topic of artisans as entrepreneurs. This manual has been developed to serve as accompanying material for a practical course in silo manufacturing under the guidance of an instructor. Adequate selection of artisans is crucial to success. Upon completion of the course, artisans can use the manual as a guide and reference work. We hope this manual will also be useful for institutions involved in ensuring food security, as it contains crucial knowledge for building, promotion and marketing of metal silos.

Currently SDC is promoting a two-year project which targets and experimentally implements the “POSTCOSECHA” metal silo approach in selected pilot areas and countries of East and Southern Africa (ESA), drawing on SDC’s highly successful experiences in Central and South America and the Caribbean and validating its application potential in ESA. Apart from initiating the program in Africa, the project will provide SDC with conclusive insights on the viability, impact potential and actual scale-out pathway for a longer-term program in ESA.

If you have any further questions, please do not hesitate to contact the Head Office of SDC, through [www.postharvest.ch](http://www.postharvest.ch).

Bern, Switzerland; November 2008  
Max Streit

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