

SALTRA
PROGRAM ON WORK & HEALTH IN CENTRAL AMERICA



Project reports Phase I

November 21, 2003 – November 20, 2007

Swedish National Institute of Public Health (SNIPH), Östersund, Sweden

In collaboration with

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April 30 2008



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Abbreviations

ACP	Authority of the Panama Canal Autoridad del Canal de Panamá
ALAMES	Latin American Association of Social Medicine Asociación Latinoamericana de Medicina Social
BSS	Belize Social Security
CIAT	Center for Toxicological Information and Advice (USAC, Guatemala) Centro de Información y Asesoría Toxicológica
CICS	Research Center of Health Sciences (USAC-Guatemala) Centro de Investigaciones en Ciencias de la Salud
CIS	Social Integration Council Consejo de Integración Social
CISTA	Research Center in Health, Work & the Environment (UNAN-León, Nicaragua) Centro de Investigación en Salud, Trabajo y Ambiente
CKD	Chronic kidney disease
COMISCA	Council of Ministers of Health of Central America Consejo de Ministros de Salud de Centroamérica
COMITCA	Council of Ministers of Labor of Central America Consejo de Ministros de Trabajo de Centroamérica
CoPEH-TLAC	Community of Practice in Ecohealth - Toxics in Latin America and the Caribbean
FUNDACERSSO	Foundation to support the Regional Center for Occupational Safety and Health Fundación en Apoyo al Centro Regional de Seguridad y Salud Ocupacional
FUNDAUNA	Foundation for the Academic Advancement at the Universidad Nacional Fundación para el Desarrollo Académico de la Universidad Nacional
IDRC	International Development Research Center (of Canada)
ILO	International Labor Organization
ISSS	Social Security Institute of El Salvador Instituto Salvadoreño del Seguro Social
IOM	International Organization of Migration
ION	National Oncology Institute (Panama) Instituto Oncológico Nacional
IRET	Central American Institute for Studies on Toxic Substances (Costa Rica) Instituto Regional de Estudios en Sustancias Tóxicas
ITCR	Instituto Tecnológico de Costa Rica
KTH	Royal Institute of Technology Kungliga Tekniska Högskolan
NFPA	US National Fire Protection Agency
NIWL	Swedish National Institute for Working Life
NOSHC	National Occupational Safety & Health Committee of Belize
OH	Occupational health
OIRSA	Regional Plant Protection Organization in Central America Organismo Internacional Regional de Sanidad Agropecuaria
OSH	Occupational safety and health
OSHA	US Occupational Safety and Hygiene Association
PAHO	Pan American Health Organization

PLATS	Latin American Program for Social Work (Honduras) Programa Latinoamericano de Trabajo Social
RED	Interdisciplinary Regional Network of Professionals in Occupational Safety and Health (SALTRA Project 3.1)
RESSCAD	Meeting of the Health Sector of Central America and the Dominican Republic Reunión del Sector Salud de Centroamérica y República Dominicana
RSST	Listserv on Safety and Health at Work (PAHO) Red de Seguridad y Salud en el Trabajo
SAICM	Strategic Approach towards International Chemical Management
SALTRA	Program Work & Health in Central America Programa Salud y Trabajo en América Central
Sida	Swedish International Development Cooperation Agency
SICA /SISCA	Central American Integration System / Secretariat for Central American Social Integration Sistema de Integración Centroamericana / Secretaría de la Integración Social Centroamericana
SNIPH	Swedish National Institute of Public Health
TLA	Latin American Water Tribunal Tribunal Latinoamericano del Agua
UDELAS	Specialized University of the Americas Universidad Especializada de las Américas
UES	University of El Salvador
UN	United Nations
UNA	Universidad Nacional (Costa Rica)
UNAH	National Autonomous University of Honduras Universidad Nacional Autónoma de Honduras
UNAN-León	National Autonomous University of Nicaragua at León
URACCAN	University of the Autonomous Regions of the Caribbean Coast of Nicaragua Universidad de las Regiones Autónomas de la Costa Caribe Nicaragüense
USAC	University of San Carlos (Guatemala)
UTP	Technological University of Panama
WAHSA	Program Work and Health in Southern Africa
WHO	World Health Organization
WHO CC	World Health Organization Network of Collaborating Centers

Executive summary

The four-year Phase I SALTRA was officially closed on November 20, 2007. This report describes experiences of the SALTRA program in terms of achievements, failures and lessons learned.

In November 2003, Phase I of the Program on Work & Health in Central America, SALTRA, was launched as a long-term collaborative program between Central American and Swedish institutions with financial support from Sida, to contribute to improvements in working conditions and public health through reduction of occupational safety and health risks in Central America. Phase I was the result of a long period of planning with Central American and Swedish actors involved, including Sida officials. The objective for Phase I was to establish a solid and well operating basis for a long-term action program in occupational safety and health in the seven Central American countries and the Region as a whole. The long-term objective of SALTRA was defined as national and regional capacity building for the prevention of occupational health (OSH) risks with public health and labor market perspectives. The ultimate goal of SALTRA is to contribute to the reduction and prevention of poverty.

SALTRA has focused on the most vulnerable populations. Important characteristics of the Program are that it is university-based, highly interdisciplinary, interinstitutional and intersectoral. By way of participant and empowering methodologies, SALTRA has looked for efficient responses to the national and regional occupational safety and health problems. Equity has been an overriding principle, including gender, ethnicity, age and informal work as cross-cutting themes.

Phase I of SALTRA contained six components: (1) actions for risk reduction and health promotion, subdivided in projects for construction, sugarcane, hospitals and the informal sector; (2) capacity building for risk monitoring through national occupational health profiles and feasibility assessments of establishing registers for surveillance of exposures (hygiene measurements, carcinogenic agents, pesticides, non-pesticide chemical agents) and effects (occupational accidents, fatal injuries, occupational diseases), and for training and risk monitoring by workers' organizations; (3) professional capacity building, subdivided into projects for a regional interdisciplinary network of OSH professionals, twinning operations between universities in the Region, and outbreak studies; (4) communication; (5) the preparation of Phase II, and (6) the establishment of an organizational structure for the Program.

During the first two year of Phase I implementation, a gradual extension of the Program activities from Costa Rica and Nicaragua to the remaining Central America occurred. During Year 3, activities increased in all countries at great speed with strong involvement of national and regional teams and many stakeholders. During Year 4, consolidation of the SALTRA structure was the main priority.

During Phase I, the following SALTRA organizational structure emerged and consolidated: a Central American and a Swedish program director, two regional resource centers, national representatives, regional project coordinators, national project coordinators, national project teams, Swedish project counterparts, and a SICA/SISCA representative. SALTRA also has counted with administrative support. The regional program direction has been located at SALTRA Resource Center IRET/UNA, with some functions shared with the head of the SALTRA Resource Center CISTA at UNAN-León. The coordinator at SICA/SISCA promoted SALTRA with regional stakeholders, most importantly the councils of ministers of health labor

and social integration, and with international agencies. The Swedish Program Director was responsible for support in program and financial management in Central America and for the overall finances. The Swedish project counterparts provided technical project support and training for SALTRA collaborators. Overall the Swedish participation was important in North-South capacity building. In addition, in 2006, the government of Costa Rica assigned the leaving Minister of Health to SALTRA, as advisor on health policies and, during some time, Sida allocated a Swedish Bilateral Assistant Expert to SALTRA. The functions, responsibilities and communications of these key persons in the organizational structure, as established during Year 3, operated well.

Over the course of Phase I, other organizations supported SALTRA. Significant contributions for different projects were received from US-Fogarty programs at six US universities, ILO, 3F Danish Trade Union Confederation, IOM, Dutch Embassy, universities, participating enterprises, national health institutions, among others.

During Year 4 specifically, the most important achievement was the strengthening of the basis for the future phases of a long-term action program in close collaboration with Swedish counterparts. This implied further building of the regional SALTRA structure; by the end of Phase I over 100 persons worked directly with SALTRA projects in all countries, and many more participated as collaborating stakeholders. Training courses were promoted by the RED, including a course on integrating gender and ethnicity into SALTRA projects as recommended by the external evaluators, and design of training courses by the Swedish counterpart for the training project. South-South and North-South collaborations continued with visits of Swedish counterparts to the Region for project support, a number of SALTRA members conducting training and education activities in other countries, and joint project design and implementation, in particular chronic kidney disease studies in El Salvador and Nicaragua. During the last year of Phase I, communications were moved forward with a large number of publications and broad distribution of SALTRA products. Alignment with other training and research programs increased with joint funding and implementation of activities with CoPEH-TLAC, an official agreement with the regional office of FUNDACERSSO, and preparation of training materials for the health sector with the WHO/PAHO CC network. Advancing of local ownership of SALTRA projects at coordinating and collaborating institutions experienced a severe drawback, with uncertainty of the long term perspective due to the discontinuation of Sida funding.

The main accomplishment of SALTRA at the end of Phase I is a consolidated regional network of OSH professionals and collaborating institutions, as a basis for a long-term action program with strong South-South and North-South collaborations. SALTRA met the indicators of objective achievement for the Program in general, through the achievement of the objectives' indicators for more than seven of the components and their subcomponents, positive internal and external evaluations in Year 4, and a proposal for Phase II submitted to Sida. A number of concrete results and products were achieved in all projects.

Highlighting a few of the most important results in terms of improved work environments: participatory methods on sugarcane plantations in four countries (Belize, Costa Rica, El Salvador and Nicaragua) triggered a chain of problem solving actions and improved monitoring capacity; a comprehensive community empowerment project in Costa Rica resulted in broad interinstitutional attention to improve complex work and living conditions of migrant workers from three countries (Costa Rica, Nicaragua and Panama); hospital health promotion programs are functioning in two countries (one hospital in Guatemala and Panama each), with full support from hospital authorities and participation of officials of various hospital departments in the

implementation of interventions; nine outbreak studies in four countries (Costa Rica, El Salvador, Honduras and Nicaragua) have impacted directly on work conditions and have triggered improved legislation or enforcement of existing legislation, for example those of chlorpyrifos poisoned banana and industrial workers in Honduras and Costa Rica, respectively. Special mention must be made to the studies on an epidemic of severe chronic kidney disease in El Salvador and Nicaragua, which have provided essential data for quantifying the epidemic and sparked off the elaboration of international multicentric research proposals regarding this severe and costly public health problem with likely occupational and environmental etiologies.

Highlights of concrete products include an interinstitutional working group on safety in the construction sector in Honduras, national OSH profiles for policy support, data on numbers of workers with specific carcinogenic exposures in three countries, a regional pesticide import data base for surveillance of pesticide use, ad hoc reports of fatal occupational accidents in Costa Rica and Nicaragua, a detailed proposal to the government regarding the establishment of a register of work-related diseases by an interinstitutional working group in Costa Rica, a workers' OSH training program including a manual, a regional interdisciplinary network of some 300 Central American OSH professionals (the RED), a number of SALTRA professionals in master training, a newsletter 'Las Noticias', a SALTRA Technical Series, several videos with one competing for international prizes, the organization of three international conferences, scientific publications, an interactive website, and a well functioning administrative organizational structure.

Most difficulties were as foreseen at the start of the Program. There were insufficient well-trained human resources in the Region for the immediate implementation of the Program. The training of professionals and capacity building by the Program did not suffice during Phase I to solve this issue. Funds were insufficient for some of the components, but many additional resources were provided locally and by other donors. The collaboration with other regional and international programs could be considerably improved. Bureaucracy was a serious obstacle for official agreements of the Program as a basis for institutionalization and ownership at collaborating institutions. Change of governmental and university authorities often delayed progress.

However, disruption of the planned long-term support by Sida despite successful attainment of objectives was not foreseen. All activities were guided with the strategic perspective of self-reliance and extended (if not complete) self-sustainability after 2015, when SALTRA had planned to end in its present form. Phase 1 has laid the ground for strongly increased conditions for sustainability. Due to a new policy for Sida, the Program cannot be financially supported as planned for another eight years. Limited funding has been granted for phasing out during 12 months. SALTRA will follow a strategy during 2008 towards early sustainability, including the finalization of Phase I projects aiming at concrete usable products, search for increased local and stakeholder contributions, lobby with other potential donors, and grant writing activities for SALTRA components.

I. Introduction

This report summarizes the experiences of Phase I of the Program on Work & Health in Central America, SALTRA.

In November 2003, Phase I of SALTRA was launched as a long-term collaborative program between Central American and Swedish institutions with financial support from Sida, to contribute to improvements in working conditions and public health through reduction of occupational safety and health risks in Central America. Phase I was the result of a long period of planning with Central American and Swedish actors involved, including Sida officials.

The objective for Phase I was to establish a solid and well operating basis for a long-term action program in occupational safety and health in the seven Central American countries and the Region as a whole. The long-term objective of SALTRA was defined as national and regional capacity building for the prevention of occupational health risks with public health and labor market perspectives. The ultimate goal of SALTRA is to contribute to the reduction of poverty.

SALTRA has focused on the most vulnerable populations. Important characteristics of the Program are that it is university-based, highly interdisciplinary, interinstitutional and intersectoral. By way of participant and empowering methodologies, SALTRA has looked for efficient responses to the national and regional occupational safety and health problems. Equity has been an overriding principle, including gender, ethnicity, age and informal work as cross-cutting themes.

Phase I of SALTRA contained six components: (1) actions for risk reduction and health promotion, subdivided in projects for construction, sugarcane, hospitals and the informal sector; (2) capacity building for risk monitoring through national occupational health profiles and feasibility assessments of establishing registers for surveillance of exposures (hygiene measurements, carcinogenic agents, pesticides, non-pesticide chemical agents) and effects (occupational accidents, fatal injuries, occupational diseases), and for training and risk monitoring by workers' organizations; (3) professional capacity building, subdivided into projects for a regional interdisciplinary network of OSH professionals, twinning operations between universities in the Region, and outbreak studies; (4) communication; (5) the preparation of Phase II; and (6) the establishment of an organizational structure for the Program.

SALTRA's different components and subcomponents, which are carried out in seven Central American countries, its multi-stakeholder orientation with interinstitutional, intersectoral and transdisciplinary approaches and participatory methods, and active involvement of national, regional, Swedish and international actors makes it a complex and comprehensive Program. SALTRA has been on its way to construct an innovative model for occupational safety and health (OSH) capacity building programs in developing countries that deserves to be viewed at internationally. This report discusses the Phase I achievements of the SALTRA Program as a whole and of each of the projects, emphasizing separately specific aspects of Year 4 including activities carried out by the coordinating institutions and administrative issues in Central America and Sweden.

II. Project reports Phase I

Component 1. Actions for risk reduction and health promotion

Project 1.1 Accident prevention and safety promotion in the construction trade (El Salvador, Honduras)

Overall evaluation: The overall objective achievement indicator was a rather low 35%, which was for a major part related to construction being a highly dynamic productive activity, with temporary projects, moving work sites and enterprises not being safety-oriented. Despite such challenges, the serious health risks require urgent interventions in the entire Region, for which SALTRA has identified national and international stakeholders and gained experience during Phase I.

Coordination

In El Salvador, personnel of the Social Security initially coordinated the project; from August 2006, the Faculty of Engineering & Architecture of the University of El Salvador has taken on this task. In Honduras, the Department of Civil Engineering, Faculty of Engineering, has coordinated the SALTRA construction project since May 2005. The regional coordination was located at the Instituto Tecnológico de Costa Rica (ITCR). The Swedish counterpart was located first at the NIWL and later at the KTH.

Construction is a high priority sector in the entire Central America. This project was carried out in El Salvador and Honduras. The main achievements during Phase I were 1) background data on production, accidents and legislation in both countries; 2) increased awareness with national intersectoral and interdisciplinary networks coordinated by UES and UNAH, including drafting of new legislation in Honduras; 3) strong links of the SALTRA construction project to educational programs with teaching and research projects and student involvement, and construction being included in the curricula of several graduate programs, in particular in civil engineering, in both countries; 4) participatory identification of risks and solutions with training of workers at construction sites and in enterprises related to the production of construction materials, especially in Honduras; 5) communications in the form of seminars, conferences, and written materials, especially in Honduras; 6) Other SALTRA activities: in Costa Rica a training program for engineers with an OSHA Training Institute at a US university and in Panama a workshop at the Authority of the Panama Canal (ACP) on mega construction projects, with experts from Panama, Sweden and the US.

The main problems were related to national and regional coordination with a late start of activities, especially in El Salvador, and to excessive bureaucracy to access funds in Honduras. Construction is a difficult sector by nature with temporary projects and moving sites. Construction enterprises remain reluctant to OSH programs. The continuation of the project is seriously challenged at the withdrawal of the Swedish International Development Cooperation Agency (Sida) as the major supporting agency. In-country and in-house funding at universities and several other agencies are being explored for continuation.

Project 1.2. Safety and health in sugarcane sector (Belize, Costa Rica, El Salvador, Nicaragua)

Overall evaluation: The project accomplished 100% of the objective achievement indicators. Participatory actions in six participating enterprises and one cooperative resulted in reduction or elimination of accident risks. Quantification of long-term health risks has started, including

actions to reduce these risks. In addition to OHS personnel, more than 300 workers and supervisors have been trained in all enterprises and empowered. During the project occupational health and safety committees were formed and/or trained. The project generated methodologies and knowledge that could be used in action-orientated projects in other sectors.

Coordination:

The coordination was performed by the Belize Sugar Industry (Belize); IRET-UNA (Costa Rica); Faculty of Chemistry and Pharmacy, UES (El Salvador); and CISTA-UNAN-León (Nicaragua). The regional coordination was located at IRET-UNA. The Swedish counterpart was located first at the NIWL and later at KTH.

The growing sugarcane sector generates temporary and permanent jobs for over a 1.5 million persons in Central America but also has one of the highest accident rates. In a recent regional workshop in Honduras, all countries mentioned accident reduction in this sector as a priority. The project was performed in Belize, Costa Rica, El Salvador and Nicaragua. Main achievements of the project were: 1) active participation of six enterprises and two cooperatives; 2) adaptation of participatory methods from existing approaches, and their successful application in the four countries; 3) identification of more than 400 health hazards with their respective solutions; 4) follow-up of at least 50% of these solutions in each country; 5) the formation and/or empowerment of occupational health and safety committees with representation of workers and supervisors; 6) the formation and/or improvement of accident registers in all countries; 7) the development of software for a new reporting system, including a manual, that was tested in two Nicaraguan enterprises; 8) an over 20% reduction of accident incidences in five enterprises in 2007 as compared to 2005; 9) identification and selection of long-term health risks in all countries; 10) quantification and implementation of actions to reduce long-term risk in three of the countries; 11) training of personnel of occupational health services at enterprises and key-persons of cooperatives; 12) training in OSH and empowerment of more than 300 workers and supervisors.

One of the main difficulties was the communication with enterprises (Costa Rica, Nicaragua) and cooperative (Belize) with regard to follow-up on actions, partly related to the high workload of both the SALTRA-team and the personnel at the enterprises and cooperatives. This also negatively affected the delivery of reports. In El Salvador, the main difficulties were the late access to funds due to bureaucratic problems and the limited experience in occupational health and safety. Positive actions for change were still reached thanks to the enormous commitment of the national coordinators. Unfortunately, just as these difficulties have been overcome; the future success of the project is threatened due to withdrawal of Swedish funding. Continuation of the project is being sought with other agencies.

Project 1.3. Health promoting workplaces in hospitals, hotels and restaurants (Guatemala, Panama)

Overall evaluation: *The project accomplished 100% of the objective achievement indicators for health promotion in hospitals, whereas the project in hotels, restaurants and bars was not considered feasible at present. A number of interventions in the participating hospital facilities reduced work-related and life style risks. In general, the project yielded methods and experience to improve the health and working conditions of health personnel in Central America.*

Coordination

In Guatemala, the Center of Health Research (CICS) of the University of San Carlos (USAC) has coordinated the SALTRA health promotion project since May 2005. In Panama, the Faculty of Medicine of the University of Panama coordinated the project in the National Oncology Institute (ION) and the Social Security and UDELAS in the Regional Hospital of Chiriquí since 2005. The regional project coordination was located at the IRET-UNA, subsequently and in collaboration with IRET-UNA also at CICS-USAC, and the Swedish counterpart at the Swedish National Institute of Public Health (SNIPH).

The service sector is growing in Central America. The health of health personnel is a special priority because of many and diverse risks, size of the worker population and high proportion of women, and its link to provide and facilitate health. This project was carried out in Guatemala and Panama. The main achievements during Phase I were 1) feasibility assessment of health promotion programs in one hospital in Guatemala and two in Panama with analysis of occupational and lifestyle hazards, individual interest in participation and adequacy of social context for such programs; 2) participation of workers in the identification of priorities for interventions; 3) sensitization and promotion of general health awareness, hazard perceptions and lifestyles in all three hospitals; 4) implementation of a number interventions in one hospital in each country, addressing both hazardous lifestyles and work-related hazards; 5) publications, conference presentations, and mass media communications; 6) training of SALTRA collaborators.

The feasibility of the hotel/restaurant/bar sector scored negative in both Guatemala and Panama because of insufficient cooperation from the managements. The main difficulties in hospital health promotion program were related to weak experience in health promotion as well as in occupational health in both countries causing methodological difficulties. A late start caused late reports. Changes in administration of USAC and insufficient participation of the hospital personnel in Panama City introduced uncertainties for the future. The continuation of the project is seriously challenged at the withdrawal of the Swedish Sida as the major supporting agency. Continuation of the project is being sought with other agencies.

Project 1.4 Community empowerment in the informal sector: work, health, socioeconomic intervention (Costa Rica, Honduras)

Overall evaluation: The project accomplished over 100% of the objective achievement indicators for the rural informal economy in Costa Rica and about 75% for the urban informal sector in Honduras. Important experiences were gained for the implementation of participatory health empowerment projects among workers of the complex informal economy (including particularly vulnerable populations of migrant, indigenous, children, and women workers), integrating public health, occupational health and economic perspectives.

Coordination

In Costa Rica, the rural project has been coordinated by the Central American Institute for Studies on Toxic Substances (IRET), Universidad Nacional, since November 2003. In Honduras, the urban project has been coordinated by the Postgraduate Latin American Studies of Social Work (PLATS) and Scientific Investigation Unit, Faculty of Medical Sciences, National Autonomous University of Honduras, since November 2005. The regional project coordination is located at the IRET-UNA, and the Swedish counterpart was at the NIWL until its closure by the new Swedish Government, and after that at the University of Uppsala.

The informal economy constitutes some 30-60% of the active workforce in Central America. Phase I of the project comprised rural migrant workers in Costa Rica, a sector at particularly high risk, and an urban informal economy population in urban Tegucigalpa Honduras. The rural project started in November 2003 and the urban project in November 2005.

Rural project (Los Santos Zone, Costa Rica)

The rural migrant population in Los Santos covers 11,000 persons, most of them transborder migrants that arrive each year at the agro-export Los Santos Zone in Costa Rica to harvest coffee in 620 farms, and are designated to live in 1,200 temporal dwellings. The activities and results of the project include 20 local, national and international publications (including bulletins, articles, booklets, television programs and DVDs), over 30 stakeholder meetings, a geographic atlas of the zone, field trips to the plantations, dwellings and communities of origin of the migrants, a census of the entire migrant population with baseline data on migrant and dwelling conditions, a water quality study, health sensitization of the migrants, the community reduction of child labor, preventive measures of health hazards and violence, an alphabetization program, and proposals for further action in ergonomic and psychosocial health concerns and in social responsibility matters of the employers, improvement of housing conditions, services and social security, and a continuous self-evaluation system within the IRET group. Living and working improvements in this underserved sector are difficult to achieve and need a long term approach. Funding for continuation is being sought with Costa Rican, Panamanian and international agencies.

Urban project (Calle del Comercio Colonia Kennedy, Tegucigalpa, Honduras)

A census of the population and its living and working conditions has been conducted. Nineteen priority environmental and occupational health hazards have been identified. These represent physical, chemical, biological, social and psychological hazards. Health examinations have been conducted for the population. A local coalition of stakeholders has been formed. Health sensitization of the population and the community is underway. The health of the informal economy workers has been placed on the health agenda of Honduras.

Component 2. Capacity building for monitoring occupational hazards and health risks***Project 2.1. Occupational safety and health profiling and development of occupational safety and health indicators of sustainable development (all Central American countries)***

Overall evaluation: This project was unexpectedly difficult with an overall indicator of objective achievements of 60%. An operational design for periodic and systematic monitoring of basic indicators was established and complete data sets exist for four countries. Despite limited results, we deem this a feasible project in Central America and its continuation is important.

Coordination

Coordinating entities since 2004 were the Belize Social Security in Belize, IRET-UNA in Costa Rica, the Master Program of Public Health at UES in El Salvador, CICS-USAC in Guatemala, the Faculty of Medicine at UNAH in Honduras, CISTA/UNAN-León in Nicaragua, and the Social Security of Panama in Panama. The regional project coordination was located at the CISTA/UNAN-León and the Swedish counterpart at the Swedish National Institute of Public Health (SNIPH).

OSH profiling is important for governments and other stakeholders as a tool for policy making and preventive actions. This project was carried out in all seven countries. The main achievements during Phase I by country were: 1) consensus between countries about OSH indicators to be included; 2) a guide with more than 60 indicators; 3) four completed national

reports (Costa Rica, Honduras, Nicaragua and Panama), and three incomplete reports (El Salvador, Guatemala and Belize); 4) dissemination of preliminary results to key social actors in six of the seven countries; 5) a detailed statistical appendix of occupational health data from Honduras and a detailed OH legislation publication in Costa Rica; 6) use of the profile in Nicaragua by the National Committee of Occupational Safety and Hygiene and by PAHO in workshops for strategic planning; 7) training sessions and workshops with national project coordinators to develop basic OSH indicators and at national level in Honduras and Nicaragua; 8) a proposal for a regional workshop on regional indicators to be discussed with other organizations and social actors.

The process of collection, systematization and interpretation of data was considerably more difficult than expected. The limited results reflect the scarcity of available data, disperse and divergent data sources, as well as the lack of experience in intersectoral cooperation, data search, data systematization and writing skills of the project team.

Project 2.2 Exposure and endpoint information systems (seven subprojects of health hazard and risk surveillance) (between 2 and 7 countries per project)

Overall evaluation: The indicator of objective achievement for the feasibility assessment and establishment of registries was accomplished in about 65%, with pesticide import and use data bases for all Central American countries, statistics on fatal occupational accidents in two countries, estimates of workers occupationally exposed to carcinogenic agents in two countries, and the valuation of feasibility of a registry of occupational diseases in one country. Feasibility assessments were usually carried out, but reports not always written. Several of the subprojects carried out actions and achieved impacts, including important political action, far beyond a feasibility assessment at the country level.

Coordination for the seven subprojects were as follows:

For 2.2.1 Databases of hygiene measurement: the national coordinations were located at ITCR in Costa Rica and Ministry of Labor in Nicaragua, with regional coordination at CISTA/UNAN-León, Nicaragua.

For 2.2.2 Pesticide import and use databases: the national coordinations were located at the Pesticides Control Board (PCB), Belize; IRET-UNA, Costa Rica; UES, El Salvador; USAC, Guatemala; UNAH, Honduras; UNAN-León, Nicaragua; University of Panama (UP), Panama. The regional coordination was at IRET-UNA.

For 2.2.3 Databases of chemical agents other than pesticides: the national coordinations were at the Social Security (ISSS) in El Salvador and at the Center of Information and Attention in Toxicology (CIAT) of the Department of Toxicology of the Faculty of Chemistry and Pharmacy at USAC in Guatemala. The regional coordination was at CISTA/UNAN-León.

For 2.2.4 Carcinogenic exposures or MESOCAREX: the national coordination in Costa Rica was located at IRET-UNA and ITCR, UES in El Salvador, CICS in Guatemala, UNAH in Honduras, Ministry of Health and CISTA/UNAN-León in Nicaragua, and the Technological University of Panama in Panama; in Belize, no coordinator was found. The regional coordination was at ITCR.

For 2.2.5 Fatal occupational accidents: the national coordinations were located at the Belize Social Security (BSS); IRET-UNA, Costa Rica; Master Program of Public Health, UES, El Salvador; CISTA-USAC, Guatemala; UNAH, Honduras; CISTA-UNAN-León, Nicaragua; Ministry of Health of Panama. The regional coordination was at CISTA-UNAN-León.

For 2.2.6 Registries of occupational accidents: the national coordinations were at the SSB in Belize and at UNAH in Honduras. The regional coordination was at CISTA-UNAN-León.

For 2.2.7 Registries of occupational diseases: the national coordinations were at IRET-UNA and at the Ministry of Health of Panama. The regional coordination was at IRET-UNA.

The Swedish counterpart for all data base and registry projects was located SNIPH.

The main achievements during Phase I were: 1) feasibility assessments for data bases of hygiene measurements in Costa Rica and Nicaragua, with binational agreements on the requirement for

the establishment of a registry and on the software developed in Nicaragua, coordination of the project by the Ministry of Labor in Nicaragua, and start of data collection by the Instituto Tecnológico de Costa Rica (ITCR) in Costa Rica; 2) methods for systematic data collection on pesticide imports and use on crops with linkage to human toxicity indicators for future hazard surveillance, a proposal to the Regional Plant Protection Organization in Central America (OIRSA) to support future regional implementation, national import and use (one crop per country) databases for the seven countries, an integrated regional import database, and participation of SALTRA members in national interinstitutional pesticide steering committees; 3) completed feasibility assessments in El Salvador and Guatemala to set up databases on chemical agents other than pesticides, a regional mini-symposium on occupational health and safety in laboratories, thesis research projects on occupational solvent exposures in Guatemala, and a regional workshop of toxicology and poison control centers as a first step towards a regional network to address occupational and environmental chemical hazards; 4) completed feasibility assessments in six countries (not Belize) for the establishment of CAREX (CARcenogenic EXPosures) matrices of number of workers exposed to specific carcinogenic agents by economic sectors, complete reports for Costa Rica and Nicaragua and advances in Honduras and Panama, publication of TICAREX (Costa Rica) as the first country outside European Union, two central improvements to CAREX: breakdown by sex, and addition of important pesticides, and the use of results by government and academia for preventive purposes; 5) methods for systematic data collection on fatal occupational accidents established or assessed in five countries (including informal sector in Costa Rica), draft reports of ad hoc incidence studies for Costa Rica and Nicaragua, and increased awareness at key institutions and increased interinstitutional collaboration; 6) an interinstitutional workshop in Honduras to improve reporting and registration of occupational accidents, a feasibility report from Honduras and interinstitutional collaboration for continuation; 7) in Costa Rica, a complete feasibility assessment of a register for work-related diseases, the establishment of an official interinstitutional committee, improvement of legislation, a protocol for pilot study on surveillance in a region of Costa Rica, a preliminary design of a course for the diagnosis and registration of occupational diseases, and links with other Latin American OSH groups for the eradication of silica exposures; 8) for all projects, training of SALTRA collaborators and pertinent stakeholders; 9) for most projects and in most countries increased political interest and institutional involvement; 10) a number of conference presentations and international publications, several master theses, and diffusion through mass media appearances.

This subcomponent was very heterogeneous in terms of content and scope, but overall an ambitious endeavor. The achievements and difficulties varied widely by project and by countries. Confidentiality of commercial data was a concern in the projects dealing with exposure data. Change of governmental and university authorities delayed several of the projects in some countries. Feasibility assessments were usually completed but reports not always written. Unclear plans in the Program plan with weak regional SALTRA coordination in several subprojects, combined with insufficient budgeting from the beginning, decreased or slowed progress of most projects. Nonetheless, important achievements far beyond feasibility assessment occurred in all projects. Funds will be sought for pesticide hazard surveillance, a regional network of toxicology centers, and information systems in general.

Project 2.3 Safety and health training and risk monitoring by workers' organizations (Guatemala and Nicaragua)

Overall evaluation: The original objective achievement indicators were accomplished by approximately 50% with a pilot training experience carried out among tobacco workers in Nicaragua and commitment of workers who participated in the training to improving their working conditions. An important achievement was a workers training manual in OSH, which was not in the original workplan.

Coordination

In Guatemala, CICS-USAC has coordinated the project and CISTA/UNAN-León in Nicaragua, where also the regional project coordination was located. The Swedish counterpart was first at NIWL and later at KHI.

Occupational safety and health is not high priority in the agenda of a typical Central American worker organization. However, workers themselves have unexplored knowledge and monitoring of hazards and risks should extend to active worker populations. This project was carried out in Guatemala and Nicaragua. The objectives were to increase awareness of organized workers about creating healthy workplaces, and to empower these organizations to detect and monitor hazardous situations and risks. The main achievements include: 1) close contacts with workers' organizations and reports on training needs in both countries; 2) selection of target groups for training (banana workers in Guatemala and tobacco workers in Nicaragua); 3) design of target specific pilot courses in both countries; 4) regional workshops in participatory learning methodology; 5) a dossier on participatory learning methodology; 5) an advanced draft of a training manual; 6) an training experience with tobacco workers in Nicaragua; 7) seven project plans generated by the trained workers; 8) motivation of workers' organizations and other stakeholders about the importance of workers' OSH training in both countries; 9) a monitoring experience with the Fogarty Program of the University of Washington in Costa Rica.

Difficulties included inexperience of the project leaders in the topic, which was well overcome. New university authorities in Guatemala stopped to support the project during the last two years. Enterprises were not interested in OSH training of workers and workers' monitoring. During 2008, follow-up and evaluations will take place. Funds will be sought for the continuation of this much needed workers' training project.

Component 3: Professional capacity building

Project 3.1 RED: Regional Interdisciplinary Network of Professionals in Occupational Safety and Health; strengthening of pre-existing training programs (all Central American countries)

Overall evaluation: The overall objective achievement indicators of the RED were met in about 80%, with a very active interdisciplinary regional network of OSH professionals established in 6 countries, and interchange of experts and professionals between most countries. The RED is an important SALTRA project for intersectoral and transdisciplinary capacity building while, in addition, it contributes significantly to the integration of Central American countries.

Coordination

The coordination of the RED project was located at the SALTRA coordinating institution in each country: in Belize at NOSHC; in Costa Rica at IRET-UNA; in El Salvador at the Faculty of Chemistry and Pharmacy at UES; in Guatemala at CICS-USAC; in Honduras at the Faculty of Medicine of UNAH; in Nicaragua at CISTA/UNAN-León; and in Panama at the Faculty of Medicine at UP. The regional project coordination was located at IRET-UNA and the Swedish counterpart at NIWL first and later at KTH.

Human OSH resources are scarce in the entire Central America, especially in some countries. Interdisciplinary networking is important for collaborative capacity building aiming at synergism in actions. This project aimed at ensuring maximal utilization of existing professional resources and broadening these resources in the Region, and to facilitate implementation of occupational health action by granting of expert and material resources to selected existing occupational safety and health programs. The main achievements during Phase I were: 1) an interdisciplinary professional occupational safety and health network with over 250 members in the Region, indexed by occupation, expertise, country, institution, gender, and other relevant variables; 2) increased professional and technical training by means of six regional training courses and workshops in different topics; 3) twenty-five national training courses of workshops, in all countries except Belize, ten of them with expert support from other Central American countries and many from Swedish and international experts; 4) support of RED members to the conduction of SALTRA projects and activities, within countries and the Region; 5) participation of SALTRA-RED members of all countries in some 10 international scientific, technical and political fora; 6) inventories of graduate and postgraduate teaching programs in occupational and environmental health in Costa Rica and Panama; 7) identification of training needs in six countries, as a basis for the design of a continuing education program; 8) a basic OSH library in all countries; 9) a virtual catalogue of relevant documents and publications collected via Internet, with virtual notifications to RED members; 10) an Internet-based notification system to all RED members of global OSH news, conferences and other relevant events; 11) a virtual notification system of OSH related mass media communications from Costa Rica; 12) monthly seminars in Costa Rica (30), starting in Nicaragua (3) and Panama (3); 13) links to other networks: WHO/PAHO collaborating center network, Community of Practice in Ecohealth - Toxics in Latin America and the Caribbean (CoPEH-TLAC), Latin American Association of Social Medicine (ALAMES), Listserv of Safety and Health at Work (RSST), Foundation to support the Regional Center for Occupational Safety and Health (FUNDACERSSO), and the International Labor Organization (ILO).

Weak coordination of the RED at the national level early in Phase I was mostly overcome. The need for technical expertise to set up a well functioning interactive website has been partially but not completely solved. The regional workshop with training programs for the facilitation of support to existing training programs was postponed, because consolidation of sufficiently strong relationships takes more time than planned.

Project 3.2 Twinning (El Salvador - Nicaragua, Costa Rica - Guatemala)

Overall evaluation: The overall accomplishment of objective achievement indicators was 100%, with two twin complexes functioning and joint actions by both twinning sets. However, full sense of ownership of the project did not develop at either of the twin centers. On the other hand, interest in the model did strongly emerge in Central America.

Coordination

In Costa Rica, IRET-UNA coordinates the twinning activities with CICS-USAC in Guatemala. In Nicaragua, CISTA/UNAN-León coordinates with UES in El Salvador. The regional project coordination was located at IRET-UNA and the Swedish counterpart at SNIPH.

Joint capacity building is a priority for academic, political and social integration in the Central American Region. Capacity building among professionals in the field of occupational safety and health in Central America is a prerequisite to guarantee sustainability of the impact of SALTRA. This project was carried out in the form of university complexes between Costa Rica

- Guatemala and El Salvador – Nicaragua, with additional support from Sweden and other international stakeholders. The main achievements during Phase I were: 1) a twin center to specialize in toxicology at the Faculty of Chemistry and Pharmacy at UES in El Salvador, and a twin center to specialize in health promotion at CICS-USAC in Guatemala; 2) general OSH, research and other training of twin collaborators at UES and CICS-USAC; 3) training courses by CISTA/UNAN-León in El Salvador and formal training of two twin collaborators at UES at the OH Master Program at UNAN-León; 4) support by CISTA/UNAN-León for project implementation of sugarcane project and OSH profiling at UES as well as protocol elaboration for study on community lead contamination and health effects, and by IRET-UNA to CICS-USAC in the implementation of health promotion in hospitals; 5) joint design and conduction of the outbreak study on chronic kidney disease in El Salvador, with involvement of both Resource Centers, Swedish counterparts and other international stakeholders; 6) joint technical and scientific publications for the health promotion project by CICS-USAC and IRET-UNA; 7) an inter-center health promotion workshop Panama-Guatemala in Panama, directed by CICS-USAC; 8) expansion of twin collaboration to the Center of Information and Advice in Toxicology (CIAT) of the Faculty of Pharmacy; 9) a workshop of Central American poison control centers about chemical agents and occupational health organized by CIAT; 10) extension of twin activities between the four centers; 11) interest of university partners in the Region in this capacity building model.

During Phase I, the twin universities in Guatemala and El Salvador did not develop sufficient ownership of the project to reach its full potential. Also the Resource Centers could have exploited more the potential of this project. However, the interest of university partners in this model has matured in all countries. During 2008, lobby will be performed to continue interuniversity contacts and joint actions in the entire Region. Continuation after the phase-out period will be sought through support of the rectors of Central American universities.

Project 3.3 Hazard identification and outbreak studies (all Central American countries)

Overall evaluation: The project reached 100% of its achievement indicators and went beyond with nine studies in four countries, implementation of recommendations documented for practically all studies, and documented improved health for two. Studies were requested by workers, communities, government and enterprises. This project stimulated South-South collaborations between universities in the Region as well as international collaborations. This project placed the universities in the spotlight and was one of the most successful of SALTRA.

Coordination

The coordination of these studies was located at the SALTRA coordinating institution in each country: in Belize at NOSHC; in Costa Rica at IRET-UNA; in El Salvador at the Faculty of Chemistry and Pharmacy at UES; in Guatemala at CICS-USAC; in Honduras at the Faculty of Medicine of UNAH; in Nicaragua at CISTA/UNAN-León; and in Panama at the Faculty of Medicine at UP. The regional project coordination was located at IRET-UNA and the Swedish counterpart at SNIPH.

Outbreaks or clusters of immediate work hazards and adverse health outcomes at worksites and in worker populations are common. Workers and communities in Central America do not have means to investigate hazards or health effects. This project aimed at establishing a role for Central American universities in the assessment of occupational hazards and outbreaks as a basis for preventive actions and in the evaluation of the impact of interventions that will be recognized by policy makers. The main achievements during Phase I were: 1) nine studies in four countries, requested by different stakeholders: in Costa Rica studies on chlorpyrifos

poisoning in industrial workers, a leukemia cluster among administrative emergency workers, and a cluster of adverse pregnancy outcomes in a community next to melon plantations; in El Salvador, studies on chronic kidney disease (CKD) among sugarcane workers and community lead contamination around a battery factory; in Honduras, on chlorpyrifos poisoning among banana workers; and in Nicaragua on CKD and sugarcane workers, contact dermatitis and asbestosis; 2) recommendations issued for preventive action in all studies; 3) impacts ranging from community and worker empowerment and implementation of different actions to reduce or eliminate exposure, up to surveillance, compensation, legal actions, international campaign and changes in legislation; 4) training of SALTRA partners through South-South and South-North collaborations; 5) ongoing graduate, master and doctoral theses based on some studies; 6) increased role of universities at national levels; 7) presentations in national and international conferences and publications.

Some of the studies have required intense and prolonged follow-up, especially studies addressing conflictive situations; no human and financial resources were planned for follow-up activities. Not all countries were able to plan and carry out these studies during Phase I.

Component 4. Communication

Overall evaluation: The intensive and extensive communications have achieved that SALTRA is known inside and outside the Region by all stakeholders. It has strengthened SALTRA on the national and international levels and its influence on evidence based policy making. The indicators of achievement have been met 100% with the newsletter, a website, technical and scientific publications, training materials, and exchanges with stakeholders.

Coordination

The regional coordination was carried out by the Program Director at IRET-UNA in Costa Rica. The country representatives were responsible for communication activities in relation to SALTRA in general and together with the national and regional project coordinators for specific projects. The editor in chief of the SALTRA newsletter 'Noticias' was located in Costa Rica during Years 1 and 2, and during Year 3 the task was transferred gradually to UNAN-León, Nicaragua.

Good communication with stakeholders is a prerequisite for success in reducing work-related accidents and diseases. The main achievements of the project were 1) four issues of the newsletter 'Las Noticias' and an operational plan for continuous editing and publication; 2) a well functioning SALTRA website with an interactive component; 3) a technical series with 6 printed issues, one of which in Spanish and English; 4) about ten scientific publications; 5) organization of three international conferences, multiple national conferences in six countries, and conference cycles in occupational and environmental health in three countries; 6) many presentations and round tables on international and national conferences; 7) two videos; 8) diffusion aids such as brochures, pamphlets, banners, posters, adds regarding SALTRA and for specific projects; 9) training materials of practically all projects, 10) mass media appearances: newspaper articles, radio and television, documentaries; 11) presentations at national, regional and international political fora; 12) exchange of experiences with southern African partners. Some of the products overlap with achievements of the RED and of specific projects.

The main difficulties have been technical in nature, in particular with the website, and with lack of experience in writing.

Component 5. Preparation of Phase II

Overall evaluation: SALTRA accomplished the achievement indicator of component 5 by 100%, with positive internal and external evaluations of Phase I, a participative process for the writing of protocol for Phase II, and the delivery to Sida of a detailed workplan for SALTRA Phase II, 2008 – 2011, in September 2007.

Coordination

This component was coordinated primarily from IRET-UNA together with the Swedish counterparts at SNIPH and KHI, and with support from the Resource Center at CISTA/UNAN-León and national representatives of all countries.

This component aimed at achieving improved occupational safety and health in the Region by extending the activities of Phase I to the next four-year period. This component concerned the seven countries and the Region as a whole. The achievements of this component were: 1) documentation of obstacles, failures, achievements, new knowledge and capacities during the entire Phase I in national and regional project reports and the regional reports to Sida and the Board of Directors; 2) internal SALTRA discussions started evaluating experiences of Phase I and expectations about content and form of Phase II, starting during the Regional SALTRA workshop in 2006, with the inclusion of these reflections in the SALTRA Year 3 report; 3) national consultations to stakeholders by the country representatives and the regional Director during Year 4; 4) an positive external evaluation during February 2007 by a Swedish and a Colombian experts, much in agreement with the internal evaluation; 5) a regional multi-stakeholder planning workshop in Honduras in July 2007, organized jointly by the Central American and Swedish directors, which finalized with a statement signed by about 60 participants of all sectors and all countries urging Sida to continue support for SALTRA; 6) elaboration of the Phase II plan, jointly by Central American and Swedish key persons in August 2007, taking into account the recommendations from the consultations, internal and external evaluations and the regional stakeholder workshop; delivery to Sida of a detailed workplan for SALTRA Phase II, 2008-2011, including budgets, in September 2007.

This component did not encounter special difficulties and was carried out entirely according to plan.

Component 6. Establishment of organizational structure

Overall evaluation: SALTRA accomplished by about 90% its achievement indicator for the component 'Organizational structure', through the establishment of a solid intersectoral, interinstitutional and interdisciplinary collaborative network with a satisfactory distribution of generated information to all stakeholders. Collaboration with regional and international OSH programs was limited. Failures and successes have been continuously documented but maintaining a log was not achieved.

Coordination

This activity was coordinated primarily from IRET-UNA together with the Swedish counterparts at SNIPH and NIWL (later KHI), and with support from the Resource Center at CISTA/UNAN-León and national representatives of all countries.

There can be no comprehensive capacity building OSH program without joint action of all major stakeholders, the empowerment of weak actors, and the pooling of regional expertise. The project aimed at a highly operational administrative structure with broad representation,

collaboration between programs and actors, use of existing resources, and adequate distribution of information to all stakeholders. During Phase I, SALTRA established a solid networking structure, which is among its strongest assets and an indicator of the anchoring of SALTRA projects into the Central American society. The networking structure has facilitated dynamic South-South and North-South collaborations and capacity building. The main achievements or characteristics of this structure can be summarized as follows: 1) an adequate program administration, including appropriate financial management, with a Regional Direction at the Universidad Nacional in Costa Rica; 2) an organizational SALTRA structure with national and regional constituents: two Resource Centers at IRET-UNA and CISTA/UNAN-León, SALTRA country representatives located at the national coordinating institutions, regional project coordinators at any of the two Resource Centers for all SALTRA projects, and, at the country level, national project coordinators with national intersectoral and interdisciplinary project teams; 3) a networking structure in all countries exceeding 100 persons directly involved in SALTRA project implementation, plus many other collaborating stakeholders; 4) involvement of the Swedish counterparts appointed for each project, strengthening the networking structure for capacity building including a two-week workshop in Sweden for Central American SALTRA participants; 5) additional project funding as well as considerable support in terms of human resources and infrastructure from many stakeholders in all countries; 6) in several projects, support from international experts, in particular US Fogarty programs; 7) an increasing role of the Central American Social Integration System (SICA/SISCA) advocating SALTRA on the political level; 8) endorsement by the Central American Council of Ministers of Health (COMISCA); 9) involvement of a former Minister of Health of Costa Rica as policy advisor and to promote linkages of SALTRA with policy makers; 10) multiple national workshops in all countries (national SALTRA inaugurations and follow-ups); 11) three regional workshops, including two Central American SALTRA workshops, in 2005 and 2006, for joint reporting and planning of SALTRA activities, and deliberations on SALTRA principles and cross-sectional themes, methods, training, coordination and communication, and one in 2007 for planning of Phase II; 12) close connection with other SALTRA projects for information distribution and channeling pertinent issues, in particular with the RED (project 3.1), Communication (Component 4) and Preparation Phase II of SALTRA (component 5); 13) alignment with pertinent regional and international programs (CoPEH, FUNDACERSSO, ILO, International Organization of Migration (IOM), PAHO, WHO, Swedish universities, US Fogarty university programs, International Development Research Center of Canada (IDRC), Latin American Water Tribunal (TLA), Swedish training OSH program for Latin America) and collaboration with national associations of occupational health physicians and hygienists; 14) alignment with the southern African parallel program WAHSA, in particular between pesticide projects but also regarding administrative and organizational matters; 15) follow-up through systematization and evaluation of SALTRA experiences.

There were several difficulties and obstacles. Establishing, monitoring, and consolidating a regional networking structure consumes time and requires persistence. Not all stakeholders participate equally in the structure, in particular organizations of workers and employers. Coordination with international and regional occupational safety and health programs was not achieved to the intended degree. The pretended log keeping was a failure, but monitoring and follow-up of efficiency of the administrative management and the organizational structure was carried through adequately. The intended sharing of regional direction between the Resource Centers during Year 4 was unsuccessful.

The main difficulty emerged at the end of Year 4, when Sida decided the discontinuation of support from 2009 due to new Swedish foreign aid policies, despite SALTRA having grown

into a highly appreciated program in Central America. A strategy has been set up to increase the use of local resources and find new donors during 2008, in an attempt to achieve early sustainability.

III. Partners in SALTRA

1. Role of the Central America Social Integration System in SALTRA Phase I

The main task of the SISCA coordinator is to promote and ensure active and informed governmental participation in SALTRA activities at high levels in all relevant sectors. The activities of SICA/SISCA were limited at the start of the Program, but increased from mid 2005, with the assignment of a special SALTRA coordinator. SICA/SISCA dedicated a lot of efforts to place OSH and SALTRA on the agenda of Central America governmental organizations. The SISCA coordinator has reported SALTRA activities and results to COMISCA, CIS and RESSCAD at least twice a year. The strategic opportunity of that involvement is to update governments on occupational health as a sensible social issue, especially with regard to the current free trade agreements and globalization framework affecting the Region.

The SISCA coordinator has also been facilitating direct contacts with high level governmental representatives, mainly ministries. SICA/SISCA has been promoting the role of SALTRA as an advisory body in occupational safety and health within SICA/SISCA, for example by means of the report "Laws and Regulations on OSH in Central America". The conclusions of this report created the possibility for a regional opening for labor initiatives within SICA (COMITCA), with SALTRA functioning as permanent technical adviser on OSH issues. The SISCA coordinator made visits together with SALTRA regional direction to ministers and directors of health, labor and social security sectors. During Phase I, SICA/SISCA has identified important opportunities on strengthening the links with Regional agencies, PAHO, FUNDACERSSO and ILO.

The SICA/SISCA representative has chaired the SALTRA Program Board, which meets at least once a year. Its main roles are supervision, advice and support to the Regional Director and the National Representatives of the Program.

SISCA has found in SALTRA a key strategic partner supporting the labor component for developmental programs at Regional level based on the Integration System. Together with health, education and environment, the labor component within SALTRA projects throughout Central America have strengthened the direction toward the Millennium Developmental Objectives accomplishment.

SISCA sees SALTRA phasing out as a great disadvantage in facing the occupational health and development demands from SICA countries, since labor is one of the working mandates for SISCA. SALTRA is the only program in Central America with enough expertise and credentials to serve as OSH reference organization, specifically considering the combination of research, training and actions, which is unique in the Region, its network of interested and committed professionals at the collaborating universities, and the participatory methods used both for capacity building and the involvement of other actors in general.

2. The role of Swedish institutions in SALTRA Phase I

The SALTRA organization on the Swedish side included two institutions during phase I: the National Institute for Working Life (SNIWL) and the National Institute of Public Health (SNIPH). SNIWL was the main contractor for SALTRA. During the last year of the first phase of SALTRA, SNIWL was closed down by the Swedish Government and SNIPH took over as main contractor for SALTRA. Two of the leading persons from SNIWL were employed by the Royal Institute of Technology (KTH) and could continue the SALTRA activities due to a contract between KTH and SNIPH.

The Swedish tasks and responsibilities have included support to SALTRA's overall planning, administration and follow-up, as well as technical support and assistance. Three Swedes have had the majority of the contacts with the Central American partners but many more from the two institutes have participated as experts and Swedish project contact persons. The Swedish contact persons have frequently visited the collaborating institutions in Central America and contributed with seminars, project design and follow up, visits to authorities and to many reports. In addition to the work performed in Central America the Swedish team has been in more or less in daily e-mail contact with the Central American partners.

Swedish work environment research, training and practice are on a high standard internationally and many of the hazards in Central America have occurred earlier in Sweden and been managed. Those lessons have been of great importance for advice and suggestions. In other cases the Swedes have learnt about new exposures and working conditions from the Central American counterparts.

The integrated elements of practice, training, research and communication in the SALTRA program is unique and has been widely appreciated not only in Central America but also internationally, by e.g. WHO and ILO – and by the Swedish institutes and teams. It has been a rewarding experience to plan during five years and carry out Phase 1 during four years for the Swedish participants in the program.

3. Other organizations and donors in SALTRA

Over the course of Phase I, many other organizations supported SALTRA. Below are some major examples, but the list is far from exhaustive.

Considerable contributions were received from US-Fogarty programs for different projects, in particular in Costa Rica and Nicaragua: University of Washington (construction together with OSHA, workers' OSH training and monitoring, regional course in ergonomics and follow-up of students' projects), Texas in Houston (training in occupational respiratory diseases, diagnosis of asbestosis and other general OSH topics; funding of small research projects), and Lowell Massachusetts (workshop in Panama). In addition, these Fogarty programs as well as others at Mount Sinai, University of Emory and UCLA financially supported the III Conference on Occupational Health in the Americas organized by SALTRA in Alajuela, Costa Rica and sent their trainees as participants.

The Dutch Embassy financed a major part of the Alajuela Conference. The Danish trade union confederation 3F financed participation of workers from several countries in the Alajuela Conference. Many SALTRA participants from all countries received different scholarships to

attend international conferences to present SALTRA data in the Americas, Europe and Africa. SALTRA and CoPEH-TLAC co-organized and co-financed training activities with participation of members of both networks.

ILO financed a child labor project in indigenous areas in Costa Rica, which permitted to broaden the scope of the migrant worker project in Los Santos. IOM financed part of a pilot program for alphabetization in the Los Santos project, as well as the coffee cooperatives of the Region. The University of Costa Rica through its television channel Canal 15, financed most of the two documentary videos. The Social Security of Costa Rica provided personnel to assist in the Census in Los Santos.

The Danish 3F financed the fieldwork in Honduras for the outbreak study among chlorpyrifos exposed banana workers carried out by the two Resource Centers. The National Emergency Commission in Costa Rica paid medical examinations for all their workers as part of the intervention to stop an outbreak of leukemia cases.

The universities provided infrastructure and, in several countries, also assigned time for SALTRA projects. In Costa Rica, UNA reconstructed and furnished a house for SALTRA.

Many stakeholders contributed in terms of time, infrastructure and also finances. The participating construction, sugarcane and coffee enterprises and hospitals are examples. In Panama, the strong interinstitutional network facilitated the use of institutional resources to carry out SALTRA activities for which there were common goals. In Honduras, the university supported SALTRA education activities through open seminars and workshops. The National Occupational Health Council and National Insurance Institute in Costa Rica carried out hygiene measurements in sugar factories participating in SALTRA. In each country there are dozens of examples.

IV. Specifics concerning Year 4

1. Regional activities

1.1 Accident prevention and safety promotion in the construction trade

The construction project bloomed during 2007. In El Salvador, most Phase I activities were carried out during Year 4, including reporting on national background data in construction, a growing national SALTRA OSH network in construction, and one experience for participatory identification of risks and solutions, and training of the workers in a factory of construction materials. In Honduras, the construction team placed emphasis on the links with the university activities in safety in construction, networking with governmental organizations and the regional organization FUNDACERSSO, and multiple case studies in enterprises. Training of SALTRA collaborators and links to university education continued during 2007 in both countries.

Training of engineers and foremen continued in Costa Rica by the SALTRA facilitated training program, jointly carried out by OSHA Training Institute at the University of Washington in Seattle and SALTRA partners at the Technological Institute of Costa Rica. In December 2007, SALTRA-Panama and ACP organized a workshop with participation of experts in mega construction projects from Panama, Sweden (KHI and Swedish Work Environment Authority) and the United States (University Lowell in Massachusetts, the Big Dig project in Boston).

1.2 Safety and health in sugarcane sector

During Year 4, activities concentrated on the empowerment of the OSH-committees. Training was supplied for different OHS-items: functioning of OSH-committees, ergonomics, risk identification and evaluation, and participatory methods. Benchmarking on OSH with other companies was arranged. A checklist for hazards in offices and factories was developed on the basis of the US norm NFPA and applied in the Salvadorian enterprise. The quantitative exposure measurements performed in three countries were another important achievement.

1.3 Health promoting workplaces in hospitals

Data collection from key informants was completed in both hospitals in Panama during Year 4 as well as data analyses for the feasibility questionnaires directed to the employees. A good part of the reports and publications were published during Year 4. In Antigua (Guatemala) and David (Panama) interventions were implemented. Establishing and maintaining contacts with stakeholders to promote sustainability of the feasibility efforts was a major task.

1.4 Community empowerment in the informal sector

Year 4 was a smooth continuation of the activities started during the three preceding years in both the rural and the urban projects. The focus was, for the *rural project*, on improvements on occupational and dwelling conditions, and publication, dissemination and sensitization. Efforts to achieve a social security arrangement continued. The *urban project* concentrated on capacity building of the participants of the project, offering of health examinations and health promotion services (with 500 copies of health information printed and distributed), marketing training of vendors, and completion of the census.

2.1 Occupational safety and health profiling

During Year 4, profiles for Costa Rica, Honduras, Nicaragua and Panama were edited and are ready for publication. El Salvador has presented a corrected report, but it remains incomplete. Belize and Guatemala presented drafts but not their final reports. In Nicaragua, the National Committee of Occupational Safety and Hygiene and PAHO have used the profile in workshops for strategic planning. A workshop was held in Nicaragua together with the Swedish counterpart to define the content and format of the regional profile report. A proposal for a regional workshop on regional indicators, to be discussed with other organizations and social actors, has been delivered to ILO.

2.2 Exposure and endpoint information systems

During Year 4, all seven subprojects continued activities and all advanced towards the establishment or improvement of registries. Several projects had impact on policies. The *pesticide* project finalized the establishment of its method for sustainable data collection including training of the national coordinators, the factual databases on imports and use and drafts of technical reports on pesticide use in one crop, all in the seven countries. In addition, a proposal for future collaboration with OIRSA was formulated. With regard to *registries of chemical agents other than pesticides*, during Year 4, the assessment of the quality of existing data sources was completed, in particular for lead in El Salvador and solvents in Guatemala, with a written report from El Salvador. SALTRA integrated into the SAICM inter-institutional committee in Guatemala. Several theses and research projects started at USAC. In Guatemala the 1st Central American Meeting of Toxicology Centers was organized by SALTRA in November 2007. A regional symposium on OHS in laboratories was organized in the context of a Latin American Conference on Clinical Biochemistry. With regard to *MESOCAREX*, Honduras, Nicaragua and Panama progressed to reporting results or drafts. In Costa Rica, the project has linked to ILO/WHO global program for the eradication of silicosis, further detailing

of the matrix for silica exposure in collaboration with responsible institutes in Brazil and Chile. The CAREX data have been used in the targeting of cancer prevention by the Ministry of Health. A paper on work-related carcinogenic exposures and cancer has been prepared and submitted. Costa Rica and Nicaragua finalized data collection of *fatal occupational accidents* and wrote draft reports, including a proposal for a surveillance system in Nicaragua, and abstracts for several international conferences. In Costa Rica a protocol was developed for verbal autopsies to assess these accidents in the informal sector by means of a master thesis. Guatemala is progressing. Honduras presented a final feasibility report for *improvements of occupational accident registries*, including an outline of a proposal for a surveillance system. Costa Rica went far beyond the feasibility assessment of the *establishment of registries for occupational diseases* as described in the project report section, with almost all activities carried out during Year 4.

2.3 Safety and health training and risk monitoring by workers' organizations

Together with the trade unions, the productive sectors were selected and involved in the coordination. During Year 4, the chapters of the OSH Manual were written by project collaborators in both countries and the section on training was prepared. The pilot training course was implemented with workers of the tobacco sector in Nicaragua. In Guatemala, the pilot course was presented to trade unions of the banana sector.

3.1 RED: Regional Interdisciplinary Network of OSH Professionals

During Year 4, the RED expanded its previous activities by recruiting new members, focusing increasingly on the countries with low membership. Three regional courses were carried out (gender and ethnicity, medical anthropology, and design of training courses), and on the national levels courses and workshops took place in all countries except Belize. With PAHO, the preparation of training materials of occupational health in the health sector has started. The links for the network of CoPEH-TLAC were strengthened through the joint announcements and financing of several courses and SALTRA representations at CoPEH meetings. With FUNDACERSSO an agreement was signed and SALTRA members in El Salvador have been invited to their training sessions. New links were started with the Latin American Association of Social Medicine (ALAMES). In Year 4, much emphasis was placed on intensifying the virtual and website based activities. The regional coordinator attended a meeting in Cuba with representatives of other networks in Latin America, such as the PAHO RSST. The RED set up a distribution system for printed material in all countries.

3.2 Twinning

Besides participation in training courses by USAC twin collaborators, including a gender course organized in Guatemala, twinning activities discontinued at USAC after change of university authorities at the Faculty of Medicine. On the other hand, the Center of Information and Advice in Toxicology (CIAT) of the Faculty of Pharmacy joined SALTRA. CIAT carried out a regional workshop of poison control centers and occupational exposures to chemical agents were included among the priorities of the centers. In El Salvador, all training and project support activities continued as well as formal education of UES twin members. The main activities during Year 4 in El Salvador were the elaboration of the protocol for the lead contamination study and the joint implementation of the fieldwork of the chronic kidney disease study with the preliminary analyses now available.

Project 3.3 Hazard identification and outbreak studies

The demand for this type of study increased during Phase I and five of the studies were started and carried out during Years 3 and 4. Interventions for most projects and their follow-up took

place during Year 4. New requests were negotiated, in particular a project in Nicaragua with lobster divers in the Atlantic Coast at high risk for diving related disabilities and death. The socioeconomic context of lobster diving in the Atlantic coast is complex and intertwined with drug crime. A visit to the University of the Autonomous Regions of the Caribbean Coast of Nicaragua (URACCAN) with the Swedish counterpart of informal sector was carried out as part of the planning process of the project. CISTA/UNAN-León is part of an interinstitutional committee addressing this complex and severe public health problem.

4. Communication

During Year 4 the Program focused on finalizing technical and scientific publications, which resulted in one issue of the Noticias and four issues of the Technical SALTRA series printed, and four scientific publications or submitted papers. Seven issues are awaiting publication and many reports and articles are almost finished. SALTRA hired a communicator to help systematize data and write up some technical reports. Since Year 4, distribution records are kept at IRET-UNA of all major documents and materials, by target groups and country. Together with the RED a book catalogue has been established on the website and a service with news on OSH issues is distributed regularly from Costa Rica.

5. Preparation of Phase II

During Year 4, much emphasis was given to finalizing the internal evaluation and facilitating the external evaluation, as a basis for the preparation of Phase II. Through visits of the regional coordinators, stakeholders were consulted in all countries. A regional multi-stakeholder workshop in Honduras provided further insight in needs and priorities. Swedish and Central American directors and key persons jointly produced a workplan for Phase II, which was delivered to Sida in September 2008.

6. Organizational structure

During Year 4, the SALTRA strategy for a solid basis for the future phases of a long-term action program was strengthened in close collaboration with Swedish counterparts. This implied further building of the regional SALTRA structure; by the end of Phase I over 100 persons worked directly with SALTRA projects in all countries, and many more as collaborating stakeholders. The networking structure consolidated in the context of the implementation of specific projects. Training courses were promoted by the RED, including a course on integrating gender and ethnicity into SALTRA projects as recommended by the external evaluators, and design of training courses by the Swedish counterpart for the training project. South – South and North – South collaborations continued with visits of Swedish counterparts to the Region for project support, a number of SALTRA members conducting training and education activities in other countries, and joint project design and implementation, in particular the chronic kidney disease studies. During Year 4, communications were moved forward with a large number of publications and broad distribution of SALTRA products. Alignment with other training and research programs included during Year 4 joint funding and implementation of activities with CoPEH-TLAC, an official agreement with the regional office of FUNDACERSSO, preparation of training materials for the health sector with the WHO/PAHO CC network and others. The activities carried out for component 5 (Preparation of SALTRA Phase II) also allowed extensive structure building. Unfortunately, advancing of local ownership of SALTRA projects at coordinating and collaborating institutions experienced a drawback, with the loss of the long term perspective in the light of discontinuation of Sida funding.

2. SISCA activities during Year 4

During Year 4, SICA/SISCA continued promoting SALTRA at high political level and facilitating political contacts by supporting meetings between SALTRA and governmental stakeholders, especially Ministries of Health, Labor and Heads of Social Security Institutes. SISCA continued to report SALTRA activities and achievements at SICA's agenda of regional meetings (COMISCA, CIS and RESSCAD). SISCA obtained a Resolution addressed to SIDA, supporting SALTRA program from the COMISCA preparatory meeting of Vice-Ministers of Health. Also, SALTRA was linked to other programs within SISCA through coordinating meetings and joint strategic plans, and letters of support for the continuation of SALTRA were issued by the Central American Integration System.

SISCA prepared the reports for 5th and 6th SALTRA Board meetings. The SALTRA coordinator at SISCA participated in the activities of internal and external evaluation of Phase I, as well as in the planning activities for Phase II, including participation in the Planning Workshop for SALTRA Phase II in Tegucigalpa, Honduras, August 2007.

SISCA/SICA prepared the report "Labor Laws in Central America and the Free Trade Agreement CAFTA".

3. Swedish activities during Year 4

The fourth SALTRA year has been a very active year, both in the Region and for the Swedish counterparts. In addition to the work performed in Central America the Swedish team has been in more or less in daily e-mail contact with the Central American partners, met in Stockholm about 15 times and a couple of times in Östersund to discuss progress and for planning. Sida has been informed at three meetings.

An external evaluation of the first four-year phase was prepared and it was carried out by Nils Öström, Stockholm, and Patricia Canney, Medellín, Colombia. Their written report was finalised in the end of March 2007.

The new Swedish government closed the Swedish National Institute for Working Life (SNIWL). As SNIWL was the main SALTRA contractor with Sida, the closing of SNIWL required that another contractor took the responsibility on the Swedish side. The Swedish National Institute of Public Health (SNIPH) took over this responsibility from June 2007. Kaj Elgstrand and Nils Ocka Petersson finished their employment at SNIWL and moved over to the Royal Institute of Technology (KTH); SNIPH contracted KTH for their continued work within SALTRA.

The Swedish and Central American counterparts jointly prepared the application for the financing of the second four-year phase of SALTRA, and submitted it to Sida in September 2007. In October 2007 the Swedish government decided on a new policy for the development cooperation with Central America. As a consequence of this new government policy, Sida cannot support SALTRA's second four-year phase. Therefore, SNIPH in December 2007 applied for a phase-out budget for SALTRA, for 2008.

The travels and activities involving Swedish participation are listed in the following.

10-11 December 2006, the fourth meeting of the SALTRA Board of Directors in Antigua, Guatemala;

Kaj Elgstrand
Christer Hogstedt

16 December 2006; a one-day visit with the Panamanian counterparts in Panama City: Universidad de Panama and Caja de Seguros Sociales;

Kaj Elgstrand

13-28 February 2007; planning and follow-up meetings concerning twinning processes between UNA/Costa Rica and USAC/Guatemala and between UNAN-León/Nicaragua and UES/El Salvador, and participating in the Chronic Kidney Disease study; Guatemala, Nicaragua and Costa Rica

Christer Hogstedt

7-11 May 2007; a five-day visit to Panama; Universidad de Panama, the Canal Authority, Universidad Especializada de las Américas, Cámara Panameña de la Construcción; participation in seminar “Salud y Seguridad Laboral” and “Jornada de Ergonomía”; translation to Spanish of “To plan, perform and follow-up a training activity in occupational safety and health”;

Kaj Elgstrand

21-25 May 2007; Fifth meeting of the Board of Directors in Stockholm and Uppsala, including visit to the Department of Occupational and Environmental Medicine (DOEM) at Uppsala University, presentation and discussions concerning the evaluation of SALTRA’s first four-year phase, and preparations for the second four-year phase; the Board was extended by national representatives of participating countries during most of the week;

Swedish participation:

Nils Öström (part of the time)

Sofia Norlin, Sida (part of the time)

Kaj Elgstrand

Christer Hogstedt

Bo Johansson (part of the time)

Tord Kjellström (part of the time)

Nils Ocka Petersson (part of the time)

Eva Vingård and her colleagues of DOEM, Uppsala University (part of the time)

9-14 July 2007 Tegucigalpa, Honduras; organizing a one-day workshop on “Systematization of course planning” and participating in a two-day regional workshop for the planning of SALTRA’s second four-year phase;

Kaj Elgstrand

19-30 August 2007, Alajuela, Costa Rica; preparing the application for SALTRA’s second four-year phase

Kaj Elgstrand

Christer Hogstedt

Ingvar Lundberg, DOEM; Uppsala University

1-9 October 2007; Panama, Costa Rica and Nicaragua. Discussions concerning different approaches to the continued financing of SALTRA activities. Discussions concerning the reporting of the country profiles. Lectures on health effects of the global climatic change at the

University of Panama, the National University in Heredia and the National Autonomous University in León. Visit at sugar mill outside Managua for discussions on field research.

Tord Kjellström

23-26 October 2007, Chiriki, Panama; organization of workshop on “Planificación de Cursos en Seguridad y Salud Ocupacional”

Kaj Elgstrand

3-7 December 2007, Panama City; participation in Panama Canal workshop and construction seminar

Nils Ocka Petersson

Bertil Remaues, Swedish Work Environment Agency

4. Administrative issues during Year 4

4.1 Program management

During Year 4, staff and coordination in the SALTRA structure consolidated, with a Central American and a Swedish program director, two regional resource centers, national representatives, regional project coordinators, national project coordinators, national project teams, Swedish project counterparts, and a SICA/SISCA representative. The regional program direction continued to be located at IRET/UNA, with some functions shared with the head of the SALTRA Resource Center CISTA at UNAN-León as Assistant program Director, in accordance with the decision of the Board of Directors in June 2007. Dr. Reynaldo Flores continued in charge of SALTRA at SICA/SISCA and Dr. Rocío Sáenz, former Minister of Health of Costa Rica, continued as SALTRA advisor on health policies. Ms. Marta Castillo has assisted in administrative functions. Ms. Helen Blomquist, the Swedish BBE, finalized her contract in April 2007. The definitions of functions, responsibilities and communications of these key persons in the network, as established during Year 3, operated well.

Financial arrangements improved during Year 4. In Costa Rica, El Salvador, Guatemala, Nicaragua and Panama, the financial systems worked well. Difficulties in access to funds and inactivity persisted in Honduras and Belize, respectively, causing relatively substantial leftovers of funds, but overall, payment of national activities from Costa Rica to facilitate access to funds decreased during Year 4 even for these countries. FUNDAUNA in Costa Rica has been an efficient and transparent fund administrator.

Signing of contracts with coordinating institutions was not pursued further during Year 4, considering the possibility of discontinuation of Sida funding, but most participating institutions continued or increased their contributions with human, technical and administrative resources and use of installations. Only in Guatemala, difficulties that had emerged earlier after a change of authorities at the Faculty of Medicine, escalated towards serious difficulties for the SALTRA members at CISTA-USAC.

4.2 Program Board

During the fourth year, Dr. José Arnoldo Sermeño terminated his work at SICA/SISCA. He was replaced by Dr. Reinaldo Flórez, SICA/SISCA as President of the SALTRA Program

Board. The other members of the SALTRA Program Board were the same as during the first three years:

Dr. Marco Vinicio Herrero, UNA
 Dr. Edmundo Torres, UNAN-León
 Mr. Kaj Elgstrand, Royal Institute of Technology (earlier NIWL)
 Professor Christer Hogstedt, SNIPH.

On 10-11 December 2006 the Board had its fourth meeting, in Antigua, Guatemala. The main issues were a discussion about the third year SALTRA report, and the preliminary plans for the second four-year phase. The minutes of the meeting are attached, in appendix 1.

The fifth Board meeting took place in Stockholm and Uppsala, Sweden, on 21-25 May 2007. The meeting was extended to one week in order to discuss the evaluation of the first phase of SALTRA and to prepare for the second phase. For the same reasons, the Board was extended by national representatives of participating countries, during most of the week. One of the external evaluators, Nils Öström, as well as Sida's desk officer of SALTRA, Sofia Norlin, were participating in part of the meeting. The minutes of the meeting are attached, in appendices 2.

4.3 Financial report Year 4

NIWL received 4 x 5,000,000 SEK from Sida, for the four years of phase I. According to the yearly reports from the first three years, the total Swedish and Regional costs were 12,197,894 SEK. Thus, 7,802,106 SEK have been available during the fourth year.

The fourth year starts at November 21st 2006 and ends at November 20th 2007, but after consulting Sida it was agreed that costs that have decided before November 20th 2007 and paid after this date but before 1st of January 2008, could be registered during the fourth year. The following costs have been registered from November 21st 2006 to December 31st 2007¹:

Swedish costs		1,496,596 SEK
Regional costs UNA-UNAN	801,211 USD	5,780,064
<u>Regional costs SICA</u>	<u>34,214</u>	<u>246,828</u>
Total		7,523,488 SEK

The costs distributed over projects, countries, and types of cost are documented in appendices 3-6.

At the end of the fourth year USD 38,621 (= SEK 278,618) remain in the Region, of which 37,542 USD at UNA-UNAN and 1,079 USD at SICA. At SNIPH, 38 SEK remain.

V. Summary financial report Phase I

¹ The Swedish costs have been registered in SEK, the regional costs (UNA-UNAN and SICA) have been registered in US dollars. The Sida budget is in SEK. In order to relate the regional costs to the Sida budget, US dollars have been translated to SEK using an exchange rate reflecting the average exchange rate during the actual period.

Sida has paid in total 20,000,000 SEK to NIWL/SNIPH. Of this, 4,669,386 SEK have been used for Swedish costs, and 15,330,576 SEK have been sent to the Region (of which 14,566,875 SEK to UNA-UNAN, and 763,701 SEK to SICA). 99% of the total budget has been used according to the detailed documentation in the yearly reports. What remains at the end of the fourth year is stated above.

The original budget defined in 2003 included 4 million SEK for the Swedish activities. The costs have been 4,67 million SEK. The reason for this difference is that some costs that had not been included (or not fully included) in the Swedish budget, have been taken on the Swedish part:

- a) During the second year a ten day workshop was organised in Stockholm for 25 participants from the region. This activity was not included in the original SALTRA plan and budget, but was decided in agreement with Sida. The main part of the costs was taken on the Swedish budget: 459 tSEK.
- b) During the fourth year the external evaluation of SALTRA's first phase was carried out. The main part of the costs for this evaluation was for practical reasons paid from the Swedish budget, 222 tSEK. These costs had originally been budgeted on the regional budget.
- c) During the fourth year a one week meeting of the Program Board was organised in Stockholm. Besides the ordinary Board members, representatives of participating countries took part in the meeting. The external evaluation of the first phase was presented and discussed, and the plans for the second four-year phase were discussed. 122 tSEK of the costs were paid from the Swedish budget.

Öhrlings/PriceWaterHouseCoopers made an audit of the Swedish SALTRA costs up to February 2007, in connection with the transfer of the Sida contract from NIWL to SNIPH. Öhrlings has now been contacted by SNIPH, and it has been proposed that Öhrlings makes a total audit of SALTRAs economy during phase I, to be finalised before the end of July 2008.

VI. Overall evaluations and future plans

1. Overall evaluation

During Year 4, Phase I activities and management have been internally and externally evaluated. The internal and external evaluations were carried out with different methodologies, but arrived at similar conclusions. There was close agreement on the strengths and the weaknesses of the SALTRA Program and also on the causes behind achievements and, in some cases, noncompliance. The overall conclusions were in both cases very positive towards the work carried out during the implementation of the projects of Phase I.

Internal evaluation of SALTRA Phase I was conducted basically as a continuous process of critical analyses and evaluations regarding degree of indicator achievements and factors that facilitated or hindered the project implementation, with participation of regional program directors, Swedish counterparts, country representatives, and regional and national project coordinators have, often together with stakeholders. The external evaluation was carried out during Year 4 by one Swedish and one Latin American expert with extensive experiences from

evaluating international cooperation activities in Latin America, in accordance with Terms of References decided by SALTRA's Board of Directors and in agreement with Sida. The aim of the evaluation was to assess the relevance of the Program, results and effects, organization and efficiency, as well as ownership and participation of national institutions and target groups, and the sustainability of activities in a long perspective. The evaluations of both the process and the achievements were very positive, and agreed on most points.

The indicators were accomplished for the sugarcane project, the rural informal economy project, pesticide databases, the worker training project, the outbreak studies, the professional network, communications and, overall, the establishment of an interdisciplinary, interinstitutional and intersectoral networking basis for continued action. Other projects were delayed or only partially completed, but none of the projects failed completely in all countries. Some delayed projects caught up considerably during Year 4 after delivery of the evaluation report, such as health promotion in hospitals in Guatemala and Panama and construction in El Salvador.

According to both evaluations, the reasons for not reaching the indicators or not having delivered planned products in time were mostly too optimistic objectives (external evaluators), difficulties in identifying counterparts combined with delays in starting up the projects, difficulties in establishing formal agreements between universities and between coordinating universities and other stakeholders, insufficient professional resources assigned to SALTRA projects, insufficient reporting and writing skills, difficulties to access funds, and insufficient institutional support often related to high turnover of supporting authorities. The external evaluators also found that limited attention has been paid to gender and ethnic aspects as transversal themes in the implementation.

Conversely, strong determinants for indicator achievement were being a university based project, institutional support, pre-existing professional capacity, technical support (South-South and North –South), interdisciplinary teams, strong interinstitutional and intersectoral networks, and personal commitment. The internal evaluation phrased the regional interdisciplinary, interinstitutional and intersectoral collaborative structure together with the South – South / North – South (i.e. the combined regional, Swedish and US capacity building strategy) as the most important explanation for SALTRA's successes. The external evaluators pointed out that the combination of scientific studies, professional capacity building, participatory methods and interventions represent an efficient methodological mix, unique in the Region. They considered the established network of interested and committed professionals at the collaborating universities to be a strength of the Program, as well as the participatory methods for capacity building and involvement of other actors in general.

The management of SALTRA was a learning process about different strategies for setting up the basis of this long term action program. Nonetheless, SALTRA gradually consolidated into a rather complex but well functioning organizational structure with well defined functions, responsibilities and communication flows. At the start the spending was low, but with help of flexible handling of funds the spending caught up to what was initially planned. The Program organization and management were flexible in solving problems and overcoming obstacles. Bureaucracy in financial management in El Salvador and Honduras severely delayed project implementation and this has only been partially solved. According to the external evaluators the comparison of results with costs indicates effective use of relatively limited funds in relation to a broad and multidisciplinary scope.

SALTRA's crosscutting themes in the projects were related to equity: gender, the underprivileged, indigenous populations, children and youth, and informal work. Clearly SALTRA has addressed vulnerable populations as its priority targets, but analyses and actions differentiated by gender and age were not sufficiently specified or applied during Phase I. Methods allowed space for the SALTRA principles of participation, empowerment and health promotion in all action projects and training activities. SALTRA's public health perspective, together with its principles and crosscutting themes, has contributed to SALTRA's acknowledgement in the Region, especially by those who need most support.

The added regional value of SALTRA as a regional capacity building program is best illustrated through its South – South collaborating strategy. The pooled identification, diffusion and distribution of information and capacities in the entire Central America has aimed at maximum impact on improvement of conditions of vulnerable workers including the poorest countries. The combining of this with North-South capacity building enhanced the effects. Results suggest that the support for project implementation and training courses in Central American countries given by the Nicaraguan and Costa Rican resource centers together with other regional, Swedish and some US experts, has been crucial for the progress of the projects, which could not have been achieved working with each country on a bilateral basis.

Sustainability aspects of SALTRA as a long-term program included its university base and the good collaboration carried out with and between universities in general, stakeholder integration, long-term commitment, alignment with other training and research programs, and links with policy makers, all with a common denominator of local ownership. Yet, involvement of workers' and employers' organizations and coordination with international organizations needs to be strengthened. Local ownership has been particularly strong in some projects with participant and empowering approaches, such as in the migrant worker project in Los Santos, sugarcane in Belize, health promotion in the Antigua Hospital in Guatemala and the Regional Hospital in Chiriquí in Panama, in each of the outbreak studies, and the organizational structure in Panama headed by the University of Panama. These projects have either had an important local intersectoral involvement or achieved important interventions and improvements implemented by the target groups, or both. Not always, however, the sense of ownership at the coordinating university or collaborating institutions was sufficient. The intended process to get institutions and organizations to integrate SALTRA projects as part of their normal duties, has most often not been successful, not even at some of the coordinating universities. This issue will require a much more formal approach by means of official agreements.

SALTRA has been recognized by policy makers on the national and the regional levels as a long-term support program. Governments in Costa Rica and Nicaragua have requested support from SALTRA to evaluate or look for solutions for occupational health problems for an adverse reproductive outbreak in a melon community in Costa Rica and injuries among lobster divers in Nicaragua. The government of Costa Rica assigned the ex-Minister of Health to SALTRA. The Central American Council of Ministers of Health (COMISCA) has signed two resolutions to support SALTRA. In Panama, the University of Panama (UP) set an example for other universities with the approval of the Institute of Work and Health.

Overall, at the end of Phase I, the internal and external evaluation activities indicate that the Program is relevant in relation to existing problems and the general situation in the Region. According to the external evaluators, "a solid and well operating basis for a long term action program in occupational safety and health" has been established and the Program has already shown potentials to contribute to the reduction of poverty in a medium term perspective.

SALTRA has become a distinct and well known occupational health program in Central America. The broad, flexible, participatory and action oriented approaches have been appreciated by stakeholders in all countries. In a longer term perspective, the contributions to poverty reduction could be substantial, if successful experiences and actions could be spread in the Region. Despite a number of important weaknesses that need to be addressed, the rapid development and consolidation of the regional collaborative SALTRA structure during Phase I, the concrete successes, and the political support are a good basis to build upon further, hopefully also without continuation of Sida support.

2. Future plans

SALTRA's bottom-up approach and its long-term character created a thriving and visible Program, characterized by high engagement and enthusiasm of partners in the Region with expectations for sustainable improvements. With the discontinuation of Sida support over a one-year period, sustainability has become an extremely difficult aim.

The continuation of SALTRA, in any shape it will take in the near future, will pay special attention to shortcomings and needs for improvements identified in the evaluations and will closely follow recommendations from both internal and external evaluations. At the same time, all aspects that were particularly appreciated in the evaluations should ideally continue to characterize the future SALTRA Program. Overall, we foresee that SALTRA will not be able to meet the regional expectations on this short term with a true risk of falling apart the enormous efforts and achievements of Phase I.

A major purpose of SALTRA remains to contribute to improvements and development of the national and regional systems for occupational safety and health. In line with this, SALTRA will follow a strategy during 2008, including the finalization of Phase I projects aiming at concrete usable products, search for increased local and stakeholder contributions, lobby with other potential donors, and grant writing activities for SALTRA components. The ideal is to find another sponsor to continue SALTRA as a model of an international OSH development program, as described in the Phase II Plan, which is wishful thinking. The other elements included in the survival strategy are not very promising either. Enhancing local contributions needs stronger local ownership, which is very difficult without a SALTRA capacity building program as counterpart for increased institutional support. Grant writing for specific SALTRA projects does not automatically imply the needed South-South and North-South collaborations for capacity building. Solutions for maintaining the regional networking and capacity building structure have been discussed, including a fee from approved projects in exchange of SALTRA support for grant preparation, project implementation and distribution of information. It is not clear yet how feasible this approach is in a developmental program.

Appendices

- 1 Minutes from IV Board meeting in Spanish.
2. Minutes from V Board meeting in English.
3. Summary financial report by projects and budget items year 4 (table 1)
4. Summary financial report by country for year 4 (table 2.1) and for income, expenditure and remaining sum after year 4 (table 2.2)

5. Summary tables from SICA for 2004-2007
6. Swedish SALTRA costs during year 4
7. List of products, communications and publications 2004-2007

IV REUNIÓN DEL CONSEJO DE DIRECTORES
PROGRAMA SALUD Y TRABAJO EN AMÉRICA CENTRAL, SALTRA
Antigua, Guatemala, 10 y 11 de diciembre de 2006.

**RESOLUCIONES DE LA IV REUNIÓN DEL CONSEJO DE DIRECTORES
PROGRAMA SALUD Y TRABAJO EN AMÉRICA CENTRAL, SALTRA**

Reunidos en Antigua, Guatemala, los días 10 y 11 de diciembre de 2006, los señores Dr. Reinaldo Flores, Presidente del Consejo Directivo del Programa SALTRA en representación del Dr. José Arnaldo Sermeño Lima y Coordinador Ejecutivo SISCA/SICA para el Programa SALTRA; el Dr. Kaj Elgstrand, Representante del Instituto Nacional para la Vida Laboral de Suecia; el Dr. Christer Hogstedt, Representante del Instituto Nacional de Salud Pública de Suecia; el Dr. Edmundo Torres, representante de la Universidad Nacional Autónoma de Nicaragua, León, UNAN-León; el Dr. Marco Vinicio Herrero, representante de la Universidad Nacional UNA, de Costa Rica. Y estando presentes la Dra. Catharina Wesseling, Directora Regional del Programa SALTRA; la Dra. Aurora Aragón, Directora Regional Asistente del Programa SALTRA; la Dra. Magda Velásquez, Representante nacional de SALTRA en Guatemala; la Dra. Patricia Canney, Consultora/Evaluadora externa para el Programa SALTRA; la MSc. Mariela Garron, Asesora de la Secretaría de la Integración Social Centroamericana SISCA y la Lic. Marta Castillo, Asistente Administrativa de la Dirección Regional de SALTRA; los Miembros del Consejo de Directores de SALTRA, en su IV Reunión, deciden tomar los siguientes acuerdos:

ACUERDOS

1. Agradecer los siguientes informes presentados:
 - a. A la Dra. Magda Velásquez, por su presentación "Guatemala and SALTRA Activities"
 - b. Al Dr. Kaj Elgstrand y al Dr. Christer Hogstedt, por su presentación "Current Developments in Sweden"
 - c. A la Dra. Catharina Wesseling, por su presentación "Summary of SALTRA year 3 Activities"
 - d. Al Dr. Reinaldo Flores, por su presentación "Report on SICA's year 3 Activities".
2. Procurar, en el próximo Congreso Mundial de la Comisión Internacional de Salud Ocupacional, ICOH, en Cape Town, Sur África, en el año 2009, que haya un "stand" combinado de SALTRA con WAHSA.
3. Solicitar a COMISCA un espacio de 20 minutos en la Agenda de su próxima reunión para la presentación del Reporte del Tercer Año de SALTRA, así como procurar que los Ministros de Salud acuerden una resolución de apoyo a SALTRA.
4. Felicitar a la Dra. Catharina Wesseling y a todo el equipo de trabajo por los logros obtenidos en el Programa SALTRA durante los tres primeros años de la Fase I.

5. Enviar el Informe de SALTRA a Asdi antes del 31 de enero de 2007. Para ello, la Dra. Catharina Wesseling hará circular el documento a más tardar el día 15 de enero y el Consejo de Directores tendrá cinco días para realizar comentarios al respecto. Además, se enviará la propuesta del presupuesto para el Año 4 del Programa.

6. Aprobar los Términos de Referencia para la Evaluación externa para el Programa SALTRA.

7. El informe de SISCA/SICA será remitido antes del 31 de enero de 2007. El Consejo de Directores remitirá sus comentarios al Dr. Reinaldo Flores en un período de un mes a partir de recibido y, finalmente, será sometido a aprobación en la reunión del Consejo de Directores en mayo de 2007.

8. Las condiciones de inclusión de SALTRA como organismo permanente de consulta ante el Consejo de Ministros de Trabajo, serán analizadas por la Dra. Catharina Wesseling y el Dr. Reinaldo Flores. Sus recomendaciones serán presentadas en la próxima reunión del Consejo de Directores.

9. Previo a la próxima reunión del Consejo de Directores, en mayo de 2007, la Dra. Catharina Wesseling presentará una Propuesta para la Fase II del Programa SALTRA, que será discutida en dicha reunión.

10. Confirmar que la próxima reunión del Consejo de Directores tendrá lugar en Suecia durante los días 21 a 25 de mayo de 2007.

11. Agradecer la cálida recepción y magnífica hospitalidad de los organizadores de la IV Reunión del Consejo de Directores de SALTRA en la Ciudad de Antigua, Guatemala.



Dr. Reinaldo Flores
Representante del Presidente
del Consejo de Directores de SALTRA
y Coordinador Ejecutivo SISCA/SICA



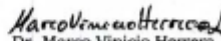
Dr. Kaj Elgstrand
Representante del NIWL, Suecia



Dr. Christer Hogstedt
Representante del NIPH, Suecia



Dr. Edmundo Flores
Representante UNAN, León,
Nicaragua



Dr. Marco Vinicio Herrera,
Representante UNA, Costa Rica

Appendix 2

FIFTH MEETING OF THE BOARD OF DIRECTORS
OF THE "WORK AND HEALTH IN CENTRAL AMERICA" PROGRAM,
SALTRA
Stockholm & Uppsala, Sweden, 21-25 May, 2007

The meeting of the Board was extended to one week in order to discuss the evaluation of the first phase of SALTRA and prepare for the second phase. For the same reasons, the Board was extended by national representatives of participating countries, during most of the week.

Minutes of the meeting

1. Monday May 21

The meeting took place at the Swedish National Institute of Public Health (SNIPH).

Present from SALTRA: Reynaldo Flores, Kaj Elgstrand, Christer Hogstedt, Edmundo Torres, Catharina Wesseling, Aurora Aragón, Rocio Sáenz, Winston Mejía, Hildauro Acosta de Patiño, Magda Velásquez, Tord Kjellström, Nils Petersson and Bo Johansson.

Absent: Arnoldo Sermeño, who excused himself.

Present guests: Sofia Norlin (Sida/Asdi), Nils Öström (Consultant).

- 1.1 Christer Hogstedt told about the current developments at SNIPH. The Institute is in the process of finalising the move from Stockholm to Östersund, further north in Sweden. By July 2007 the Institute will be entirely established in Östersund.
- 1.2 Kaj Elgstrand told about the current developments at the Swedish National Institute for Working Life (SNIWL). The Institute is in the process of closing down. By July 2007 the Institute will not exist any more. The transfer of the responsibility for SALTRA from SNIWL to SNIPH is on its way, and is expected to be finalised in mid June.
- 1.3 Reynaldo Flores told about the current developments at SICA/SISCA, and presented two documents:
 - SICA report to the 5th SALTRA Board meeting, May 21 to 25, 2007 (6 pages)
 - Reinaldo Flores: Labor Laws in Central America and the Free Trade Agreement CAFTA (23 pages)

- 1.4 Sofia Norlin, Sida/Asdi, presented the document "Progress in health development" (May 2007, 165 pages) by Sida's Health Division.
- 1.5 Catharina Wesseling summarised the main parts of SALTRA's third year report to Sida. Kaj Elgstrand distributed "Third year financial report" (dated 2007-05-11, 2 pages).
- 1.6 Nils Öström presented highlights from his and Patricia Canney's evaluation report concerning SALTRA's first four-year phase. The Board expressed its appreciation of the thorough and well-structured analysis as documented in the evaluation report, and the careful and precise presentation made by Nils Öström to the Board.
- 1.7 Catharina Wesseling and Aurora Aragón presented the plan of activities for the remaining part of the first phase of SALTRA.

2. Tuesday May 22

The main part of the day was spent at the Department of Occupational and Environmental Medicine (DOEM) at Uppsala University.

Present from DOEM: Eva Vingård, Mostafa Ghaffari, Dan Norbäck, Lena Elfman, Malin Josephson, Kristina Gunnarsson, Kalle Hogstedt & Ingvar Lundberg.
Present from SALTRA: Reynaldo Flores, Kaj Elgstrand, Christer Hogstedt, Edmundo Torres, Catharina Wesseling, Aurora Aragón, Rocío Sáenz, Winston Mejía, Hilda Acosta de Patiño, Magda Velásquez, Sandra Peraza, Tord Kjellström & Nils Petersson.

- 2.1 Eva Vingård and her collaborators at DOEM presented Uppsala University. Highlights of the activities at DOEM were given in relation to international collaboration concerning ergonomics and productivity, occupational hygiene, indoor climate, and research training in Middle East, Asia and Central America. Furthermore, presentations were given about control of pesticide use in forestry, nurse's health and work in the public sector, and occupational safety and health problems within small scale enterprises.
- 2.2 The possibility of involving DOEM as the responsible Swedish counterpart for the second phase of SALTRA was discussed. Positive statements were made on part of the DOEM personnel as well as the SALTRA personnel.
- 2.3 Sightseeing in Uppsala at Gustavianum and the Cathedral. The sightseeing had a special taste due to the preparation of the celebrations for the 300 years' anniversary of Carl Linne's (in Latin: Carolus Linneaus) birthday.

3. Wednesday May 23

The meeting took place at SNIPH, Stockholm.

Present: Reynaldo Flores, Kaj Elgstrand, Christer Hogstedt, Edmundo Torres, Catharina Wesseling, Aurora Aragón, Rocío Sáenz, Winston Mejía, Hildaaura Acosta de Patiño, Magda Velásquez, Sandra Peraza, & Nils Petersson.

Catharina Wesseling, Aurora Aragón and the national representatives presented a draft application for the second phase of SALTRA. The draft was discussed.

4. Thursday May 24

The day was spent on individual activities. Catharina Wesseling, Aurora Aragón, Luisa Castillo, Kaj Elgstrand and Christer Hogstedt summarised the discussions of the previous day, Wednesday, and prepared for the discussions of the next day, Friday.

5. Friday May 25

The meetings took place at SNIPH, Stockholm.

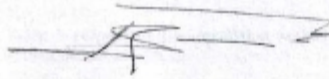
Present at 5.1: Kaj Elgstrand, Christer Hogstedt, Edmundo Torres, Catharina Wesseling, Aurora Aragón, Rocío Sáenz, Winston Mejía, Magda Velásquez, Sandra Peraza, Luisa Castillo, Nils Petersson & Tord Kjellström.

Present at 5.2-5.7: Reynaldo Flores, Luisa Castillo, Kaj Elgstrand, Christer Hogstedt, Edmundo Torres, Catharina Wesseling, Aurora Aragón.

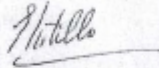
- 5.1 The continued processing of the application for the second phase was discussed as well as the remaining activities of the first phase. The Board will receive a final proposal for the application of the second phase by the end of August. The members of the Board are expected to respond to this proposal at latest at 10 September, 2007.
- 5.2 Luisa Castillo gave a summary of the current activities of Consejo Superior Universitario Centroamericano (CSUCA), and possible issues for collaboration between CSUCA and SALTRA.
- 5.3 Reynaldo Flores presented SICA/SISCAs request for financial contribution from SALTRA for the fourth year (Nov 21, 2006 - Nov 20, 2007). The Board decided to grant the requested 20,000 USD.
- 5.4 Catharina Wesseling and Aurora Aragón presented a proposal for how to define and divide the tasks and responsibilities for the regional directorship,

during the second phase of SALTRA. The Board appreciated what was presented and requested a written draft, for closer appraisal. Such a draft is attached, [appendix 1](#).

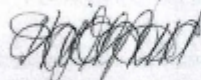
- 5.5 Christer Hogstedt proposed how to compose SALTRA's Board of Directors during the second phase. After discussion it was agreed that The Board will be extended by representatives of El Salvador, Guatemala, Honduras and Panama. Furthermore, ILO and WHO (PAHO) will be invited to appoint observers to the Board. In [appendix 2](#), a first draft is made of the observers' tasks.
- 5.6 Kaj Elgstrand made a brief analysis of how the Board has functioned during the first phase and stated that improvements are necessary in relation to the preparations and follow-up of the meetings (issue 3 in the Guidelines for SALTRA Board Functioning). The Board agreed.
- 5.7 It was decided that the next Board meeting will take place in Panama. Two alternative dates were agreed upon: 19-20 January or 31 March-1 April, 2008. The final decision of the meeting dates will be taken when the application for the second phase of SALTRA has been further developed.



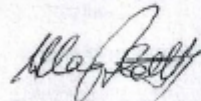
Reynaldo Flores
Representative of SICA/SISCA and of
the President of the Board of Directors of SALTRA



Luisa Castillo
Representative of UNA, Costa Rica



Kaj Elgstrand
Representative of SNIWL, Sweden



Christer Hogstedt
Representative of SNIPH, Sweden



Edmundo Torres
Representative of UNAN-León, Nicaragua

Tasks & responsibilities in relation to the regional directorship of SALTRA during the second phase

Currently Catharina (Ineke) Wesseling is the Regional Director of SALTRA, and Aurora Aragon is the Assistant Regional Director. Starting from November 2007, in the shift between the first and second phases, they will both have the task and title of Regional Directors. Tasks and responsibilities will be divided in the following way;

Aurora will be responsible for:

Budget issues

Periodic contacts with
international organisations
national SALTRA representatives
regional SALTRA project coordinators
other stakeholders

Planning the SALTRA Board meetings, together with SICA

Ineke will be responsible for:

Reporting to the Swedish counterparts and the SALTRA Board

Regional project coordinator for
Outbreak studies
Twinning

Support for preparation of new projects

Fundraising

Aurora & Ineke will jointly be responsible for:

Planning & administration of regional events

Regional coordinators of the information project

OBSERVERS TO THE BOARD OF DIRECTORS

For the second four-year phase of SALTRA, starting by the end of November 2007, ILO and WHO (PAHO) will be invited to appoint observers to the SALTRA Board of Directors. Here some related issues are mentioned.

Background

SALTRA, Salud y Trabajo en Centroamérica, is a 12 year university-based collaboration program containing components of research, capacity building and direct actions for change. The program started in November 2003.

SALTRA's Board of Directors generally meets once a year for a two day meeting. The meetings take place in one of the participating countries (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama & Sweden). Next meeting will be held in Panama, either in January or March/April, 2008.

During the first four-year phase (November 2003 – November 2007) the Board was composed by representatives of SICA/SISCA, Costa Rica, Nicaragua and Sweden. For the second phase (November 2007 – November 2011) it has been decided to extend the Board with representatives also for El Salvador, Guatemala, Honduras and Panama. Furthermore it has been decided to invite ILO and WHO to appoint one observer each to the Board.

Invitations

The observer arrangement would have three main reasons: (1) to allow ILO and WHO a detailed knowledge about the SALTRA activities, (2) to support the establishment of links between SALTRA and ILO & WHO, and (3) to enable SALTRA to enjoy the expertise of ILO & WHO, and vice versa.

The observer status would mean that the representatives of ILO and WHO will be invited to participate in all activities of the SALTRA Board of Directors. In cases of Board decisions by vote, the observers would not have any vote. This also means that ILO and WHO would not have any responsibility for decisions taken by the Board.

The invitations will be made to the regional branches of WHO and ILO. The invitations will be issued by SICA/SISCA, when there is a positive decision concerning the financing of the second SALTRA phase.

Appendix 3

**Table 1. SALTRA summary financial report for Central America. USDollars
Total expenditures by projects and budget items. Nov. 21/2006 - Dec. 31/2007
Year 4**

Proyecto	Salaries	Fieldwork, assistants and experts	Travel, Hotel, per diem	Workshops	Services	Varius	Overhead	Total Cost (Expenditures)	Budget	Balance
Construction	8.222	1.539	8.094	1.807	10.324	926	5.311	36.222	37.584	1.362
Sugarcane	6.847	2.449	14.650	5.361	1.787	11.759	4.831	47.684	48.109	426
Health promotion	9.823	10.004	12.416	6.115	2.531	98	2.820	43.807	44.438	632
Informal Sector	20.652	7.731	9.033	1.296	16.571	1.439	2.801	59.523	64.677	5.153
HO profiles	2.315	8.843	9.978	3.668	456	299	3.369	28.928	28.969	40
End-point monitoring	6.072	11.275	13.182	9.166	6.077	1.066	3.610	50.446	61.566	11.119
Workers' OSH training	12.076	16.502	8.664	8.211	77	2.507	3.303	51.340	52.025	685
Professional capacity building	28.653	25.452	39.614	37.124	8.959	46	8.516	148.363	152.590	4.227
Twinning	1.207	173	5.646	5.090	1.136	1.532	2.355	17.139	26.473	9.334
Outbreak studies	3.623	12.366	16.809	3.348	1.969	5.720	4.651	48.486	49.303	817
Communication	11.367	2.506	4.857	-	17.592	981	3.095	40.398	40.770	372
Preparation Phase II	14.499	535	13.538	1.654	5.937	409	1.848	38.420	40.000	1.580
Organizational infrastructure	54.844	16.272	42.757	15.934	6.728	6.608	23.65	166.802	168.598	1.795
Bank Comm	-	-	-	-	-	550	-	550	550	0
Other expc			23.102					23.102	23.102	0
Total	180.200	115.646	222.340	98.773	80.144	33.940	70.16 8	801.211	838.754	37.542

TABLE 2. SALTRA SUMMARY FINANCIAL REPORT YEAR 4 BY COUNTRIES - November 21, 2006 to December 31, 2007

Central America - Funds in FUNDAUNA (US\$)

Table 2.1 Financial report Funds Year 4- COUNTRIES AND REGIONAL

Country	Remaining Year 3 (2006)	Transferred year 4 (2007)	Total budget Year 4	Expenditures		Expenditures 2008 of work plan 2007	Total expenditures	Remaining Year 4 / Phase I
				21/11/2006	31/12/2007			
Belize	4.604	19.000	23.604	13.750		360	14.110	9.494
Costa Rica	0	216.500	216.500	191.337		5.927	197.264	19.235
El Salvador	50.200	16.098	66.298	59.231		7.067	66.298	0
Guatemala	14.117	30.156	44.273	44.028		0	44.028	245
Honduras	19.160	0	19.160	7.944		3.095	11.039	8.121
Nicaragua	28.904	114.149	143.053	138.424		4.629	143.053	0
Panamá	14.330	51.500	65.830	64.264		1.566	65.830	0
Regional	181.014	55.919	236.933	224.614		11.873	236.486	447
SUBTOTAL	312.329	503.322	815.652	743.592				37.542
OTHERS	0	23.102	23.102	23.102			23.102	0
TOTAL	312.329	526.424	838.754	766.694		34.517	801.211	37.542

Table 2.2 Summary: income, expenditures and remaining in US\$ and SEK

	US\$	SEK
Transfer from NIWL to FUNDAUNA Year 4	501.454	3.500.069
Transfer from SNIPH to FUNDAUNA Year 4	23.872	150.000
Total received Year 4	525.326	3.650.069
Interest gained in El Salvador	1.098	
Remaining Year 3 (Nov. 20, 2006)	312.329	
TOTAL FUNDS AVAILABLE YEAR 4	838.753	
Total costs Year 4	801.211	
Remaining Year 4	37.542	

Ejecución presupuestaria comparativa 2004 / 2007 - en USA\$

Item	Rubro Presupuestario	2004			2005			2006			2007			Acumulado		
		Presup.	Ejec.	Variación	Presup.	Ejec.	Variación	Presup.	Ejecuc.	Variación	Presup.	Ejecuc.	Variación	Presup.	Ejecuc.	Variación
1	Hon. Coordinador Proyecto	13.21	5.50	7.710	13.210	12.94	267	28.800	18.11	10.687	16.000	20.000	(4.000)	127.77	56.55	14.664
2	Viáticos	4.62	57	4.051	1.321	5.50	(4.187)	11.805	6.01	5.789	1.200	7.957	(6.757)	18.95	20.05	(1.104)
3	Dietas	2.77	-	2.774	793	-	793	-	-	-	-	-	-	3.56	-	3.567
4	Viajes y costos locales	13	-	132	132	-	132	-	-	-	-	-	-	26	-	264
5	Talleres nacionales	9.24	1.41	7.835	-	7.77	(7.775)	-	-	-	-	-	-	18.43	9.18	59
6	Evaluación externa	-	-	-	-	2.07	(2.075)	-	-	-	-	-	-	-	2.07	(2.075)
7	Mobiliario y Equipo	-	-	-	-	-	-	2.920	-	-	-	2.337	(2.337)	5.25	2.33	(2.337)
8	Auditoria	-	-	-	-	-	-	1.400	2.07	-	1.200	1.500	-	2.60	3.57	-
9	Gastos generales	4.35	-	4.351	2.378	2	2.350	1.620	5.11	(3.492)	1.600	2.420	(820)	17.51	7.56	2.388
		34.33	7.48	26.853	17.834	28.33	(10.496)	46.545	31.31	15.229	20.000	34.214	(14.214)	118.71	101.34	17.371
		9	7			0			6					8	7	

Conciliación de Caja

Fondos recibidos		102.42
	6	
	34.33	
29/06/2004	9	
	46.54	
03/01/2006	5	
	1.57	
14/06/2007	2	
	19.97	
15/06/2007	<u>0</u>	
Fondos ejecutados		(101.347
	7.48)
2004	7	
	28.33	
2005	0	
	31.31	
2006	6	
	34.21	
2007	<u>4</u>	
Disponibilidad neta al		1.07
31 de diciembre de 2007	<u>9</u>	

Swedish SALTRA costs during the fourth year

Salary costs SNIPH & NIWL/KTH	818.291 SEK
Expert salary fees	194.400
Travels, hotels & per diem	196.487
Miscellaneous	10.057
Board meeting in Stockholm	122.531
<u>Overheads SNIPH & NIWL/KTH</u>	<u>255.316</u>
Total	1.597.082 SEK

**Program on Work & Health in Central America
Project reports Phase I
November 21, 2003 – November 20, 2007**

LIST OF PRODUCTS, COMMUNICATIONS AND PUBLICATIONS

1. Actions for risk reduction and health promotion

Project 1.1 Accident prevention and safety promotion in the construction (El Salvador, Honduras)

- Petersson N, Fúnez A, López L. Workshop on action for change and participative approaches in the SALTRA projects Sugar production and Construction. Workshop report, 2005.
- Proyecto Prevención de Accidentes y Promoción de Seguridad en el Sector de la Construcción – Honduras. Proyecto Seguridad en la Construcción Honduras: Informe 2005-2007. Heredia C.R.: SALTRA. Serie Salud y Trabajo; N° 3; 2007.
- Martínez-Osegueda M. Proyecto Prevención de Accidentes y Promoción de Seguridad en el Sector de la Construcción – El Salvador. SALTRA, UES 2007.

Project 1.2 Safety and health in sugarcane cultivation and sugar production (Belize, Costa Rica, El Salvador, Nicaragua)

- Verguizas M, van Wendel de Joode B, Rojas M. Metodologías participativas: Prevención de riesgos laborales en la agroindustria de la caña de azúcar. Serie Salud & Trabajo número 5, 2007.
- Ramírez L, Herrera E. Accidentes ocupacionales y organización de trabajo en un ingenio azucarero y una cooperativa de producción de caña en El Salvador. Internal Report. 2007.
- Fúnez A, Blanco L. Informe sobre accidentes ocupacionales y organización de trabajo en dos ingenios azucareros de Nicaragua. Internal report. 2006.
- Verguizas M, Rojas M, Berna van Wendel de Joode. Participación de los trabajadores: Prevención de Riesgos Laborales en la Agroindustria de la Caña de Azúcar. Salud y Trabajo Vol 3. Nov 2006.
- Soto A. Se realiza el primer taller regional de métodos participativos. Las Noticias. Vol 2. Julio 2006.
- Verguizas M, Rojas M, van Wendel de Joode et al. Accident prevention in sugarcane workers in Costa Rica 28th International Congress on Occupational Health. Milan, Italy, 11-16 de junio, 2006. Libro de resúmenes: Página 270. p180
- González F, Funez A, Blanco L. Accidentes ocupacionales y organización de trabajo en dos ingenios azucareros de Nicaragua. II Congreso Salud y Trabajo, La Habana, Cuba, 12-16 de marzo del 2006.
- Verguizas M, Rojas M, van Wendel de Joode. Prevención de accidentes en los trabajadores de la caña de azúcar en Costa Rica. XVI Congreso de la Asociación de Técnicos Azucareros de Centro América (ATACA) y XVI Congreso de la Asociación de Técnicos Azucareros de Costa Rica (ATACORI), 4 de agosto del 2006. Libro de resúmenes: Página 91. p181
- Verguizas M, van Wendel de Joode B, Rojas M. Presentación avance del proyecto de caña de azúcar en Costa Rica. II Congreso sobre Seguridad Laboral e Higiene Ambiental, 1 al 2 de marzo, San José, 2006 p90
- Petersson N, Ramírez L, Peraza S, van Wendel de Joode B. Taller sobre Sistemas de Gestión en Salud y Seguridad Ocupacional (SGSSO) en el marco del Proyecto SALTRA para el Sector Caña de Azúcar en El Salvador. Workshop report, 2006.

- Van Wendel de Joode B, Rojas M, Verguizas M, Nah G. Workshop 'Participative Methods and Monitoring systems: Action towards Change. Workshop report, 2005.
- Petersson N, Fúnez A, López L. Workshop on action for change and participative approaches in the SALTRA projects Sugar production and Construction. Workshop report, 2005.

Project 1.3 Health promoting workplaces in hospitals, hotels and restaurants (Guatemala, Panamá)

- Partanen T, Loría-Bolaños R, Wesseling C, Castillo C, Johansson MK. Perspectives for workplace health promotion in Latin America and the Caribbean. *Int J Environ Occup Health* 2005;11:313-321
- Partanen T, Loría-Bolaños R, Velásquez M, Wesseling C. Worker health promotion: A public health view. Submitted to *J Health Prom Management*.
- Partanen T, Loría R, Wesseling C. Promoción de la salud de trabajadores. *Salud & Trabajo* 2005;1:8.
- Partanen T, Wesseling C, Loría R, Alvarado R, Velásquez M, Castillo MA, Ramírez D, Vinda P, Batista de Sellhorn I, Cordero SS, Hakansta C. Feasibility assessment of workplace health promotion. Alajuela, Costa Rica 2005: III Conference on Occupational and Environmental Health in the Americas.
- Loría-Bolaños R, Partanen T. Cultural criteria in the evaluation of health promotion programs. 6th IUPHE – European Conference on Effectiveness and Quality of Health Promotion, June 1-4, 2005, Stockholm, Sweden.
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- Velásquez M, Wesseling C, Partanen T. Health promotion for hospital personnel in Guatemala. In: *Book of Abstracts. 5th Nordic Health Promotion Research Conference 'Health and Institutional Change'*. Esjberg, Denmark, June 2006.
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- Velásquez M. Project presentation in a radio program in Guatemala.
- Velásquez M, Partanen T. Promoción de la salud del personal que labora en el Hospital "Pedro de Betancourt" Antigua, Guatemala, Fase diagnóstica. Heredia C.R. Programa Salud y Trabajo en América Central – SALTRA, IRET-UNA, CICS-USAC, Serie Salud y Trabajo, N° 6, 2007.
- Morales van Kwartel E; González Hidalgo A; Tejada A; Arosemena A; Wesseling C; Alvarado R; Partanen T; Håkansta C. Informe Final de Resultados. Análisis de factibilidad de un programa de promoción de salud. Instituto Oncológico Nacional (ION), Provincia de Panamá, Panamá. Documento interno SALTRA. 2007.
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- Proyecto Promoción de la Salud en Hospitales – Panamá. Promoción de la salud para personal de hospitales en Panamá. Heredia C.R., Programa Salud y Trabajo en América Central – SALTRA, Universidad de Panamá, Serie Salud & Trabajo, in press.

Project 1.4. Community empowerment in the informal sector: work, health, socioeconomic intervention (Costa Rica, Honduras)

Costa Rica:

- Loría R, Partanen T, Wesseling C, Carballo J, Zúñiga M, Alvarado R, Rojas M, Álvarez B, Marschatz A, Rodríguez ML. Diagnóstico trabajo infantil en población indígena de la Región Brunca en Costa Rica. IRET/UNA, OIT/IPEC. San José, Oficina Regional OIT, 2005. <http://www.ministeriodesalud.go.cr/ops/documentos>
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- Loría- bolaños R, Sáenz-Madrigal R, Partanen T. Vulnerabilidad por género y etnia en la informalidad laboral: Trabajadoras y trabajadores inmigrantes en Los Santos, Costa Rica. Simposio Economía Informal y Género. I Congreso Internacional sobre Género, Trabajo y Economía Informal. Elche, España, febrero 2008. in press.
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- Sáenz R, Gutiérrez M. Población informal como actor relevante en el Sector Salud. Costa Rica. Diciembre 2007.
- Sáenz R, Gutiérrez M. Poster Población informal como actor relevante en el Sector Salud. V Jornada de Economía de la Salud. San José, Costa Rica. Octubre 2007.
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2. Capacity building for monitoring occupational hazards and health risks

Project 2.1. Occupational safety and health profiling and development of occupational safety and health indicators of sustainable development (all Central American countries)

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Project 2.2 Exposure and endpoint information systems (health hazard and risk surveillance, subprojects 2.2.1 – 2.2.7)

Project 2.2.2 Pesticide databases (all Central American countries)

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Project 2.2.3 Data bases of chemical agents other than pesticides (El Salvador, Guatemala)

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Project 2.2.4 MESOCAREX (all Central American countries)

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- Other presentations, workshops in national and international fora, including television in Costa Rica.

Project 2.2.5 Fatal occupational accidents (all Central American countries)

- Mora AM, Wesseling C. Accidentes ocupacionales fatales en Costa Rica. Programa Salud y Trabajo en América Central, Instituto Regional de Estudios en Sustancias Tóxicas, Universidad Nacional. Informe técnico-científico. 2006.
- Mora-Mora AM, Wesseling C. Accidentes ocupacionales fatales en Costa Rica. In: Programa / Resúmenes. II Congreso Salud y Trabajo. La Habana, Cuba, March 12 – 16, 2007. p 107.
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Project 2.2.6 Registries of occupational accidents (Belize, Honduras)

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Accidentes Ocupacionales en Honduras. Facultad de Medicina, UNAH, noviembre, 2007.

Project 2.2.7 Registries of occupational diseases (Costa Rica, Panama)

- Monge P, Mora AM. Registro de enfermedades ocupacionales en Costa Rica. II Congreso Salud y Trabajo, La Habana, Cuba. March 12-16th, 2007.
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Project 2.3 Safety and health training and risk monitoring by workers' organizations (Guatemala and Nicaragua)

- Murphy H. Introducing Costa Rica farmers to self-surveillance on pesticide poisoning. Report on a training experience with banana plantation workers and subsistence farmers in Los Ángeles de Cariari. University of Washington, SALTRA, August 2004.
- Herdocia-Balladares MC, López-Narváez L. Informe evaluativo taller de capacitación en metodología de aprendizaje participativo. León, Nicaragua, 28 y 29 de Agosto 2006. SALTRA, 2006.
- Herdocia- Balladares MC, Dossier de metodología de Aprendizaje Participativo, Agosto 2006. SALTRA, 2006.
- Herdocia- Balladares MC, Material complementario Conflicto y la negociación, Taller de metodología de aprendizaje participativo. León, Nicaragua, 28-29 de Agosto 2006. SALTRA, 2006.
- Arriaga-Nowel H, Castillo A. Informe del Taller Aprendizaje por Competencias Laborales y su utilización en la capacitación a trabajadores/as. Guatemala, 15 de junio 2006. SALTRA, 2006.
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- Arriaga-Nowel H, Arriaga-Nowel H, Castillo A. Identificación de Necesidades de Capacitación en Guatemala, SALTRA 2006.
- López-Narváez L, Aragón-Benavides A. Antecedentes, motivaciones y necesidades de entrenamiento de las organizaciones sindicales en Nicaragua, SALTRA 2006.
- López-Narváez L, Aragón-Benavides A, Elgstrand K. Programa de Capacitación ¿Como lograr un ambiente de trabajo Saludable? SALTRA, 2006.

Component 3: Professional capacity building

Project 3.1 RED: Regional Interdisciplinary Network of Professionals in Occupational Safety and Health; strengthening of preexisting training programs (all Central American countries)

- Rojas M, van Wendel de Joode B, Barraza D, Guardado J, Wesseling C. Red interdisciplinaria regional de profesionales en seguridad y salud ocupacional. In: Libro de Resúmenes: III Conferencia Salud Ocupacional y Ambiental en las Américas 2005. Alajuela, Costa Rica 6 – 9 de febrero, 2005. p 134.
- Reports of the specific workshops.
- Written materials to promote membership of the RED.
- Rojas M, Carmenate L, Castillo M, Torres E, Esquivel M, Torres C. Red Regional

interdisciplinaria de profesionales en salud ocupacional y ambiental. Mesa Redonda. Congreso Salud y Trabajo. La Habana, Cuba. Marzo 2007.

- Rojas M, Acosta H. Red Regional interdisciplinaria de profesionales en salud ocupacional y ambiental. Jornadas de prevención de accidentes y enfermedades laborales. Panamá. Abril 2006.
- Rojas M. Congreso de seguridad laboral. Red interdisciplinaria de profesionales en salud ocupacional y ambiental. Instituto Tecnológico de Costa Rica. San José, Costa Rica. Abril 2006.
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- Carmenate L, Rojas M. X Congreso de la Asociación Latinoamericana de Médicos del Trabajo. Bogotá, Colombia. Abril 2007.
- Carmenate L, Rojas M. XVII Congreso Colombiano de Medicina del Trabajo y Salud Ocupacional. Bogotá, Colombia. Abril 2007.
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- Rojas M, Araya D. Informe de inventario de programas de formación en salud ocupacional y ambiental en Costa Rica. Costa Rica. Noviembre 2007.
- Esquivel M, Acosta H. Informe de Inventario de programas de formación en salud ocupacional y ambiental en Panamá. Panamá, Septiembre 2007.
- Carmenate L. I Congreso de investigación científica. Tegucigalpa, Honduras. Junio 2007.

Project 3.2 Twinning (El Salvador - Nicaragua, Guatemala - Costa Rica)

Joint publications and conference presentations are listed under the specific projects.

Project 3.3 Hazard identification and outbreak studies

Costa Rica

- Córdoba-Gamboa L, van Wendel de Joode B, Wesseling C, Ramírez F, Herrero MV. Estudio retrospectivo socio-espacial sobre un brote de embarazos no exitosos en una comunidad cercana a una finca melonera. In: Programa / Resúmenes. II Congreso Salud y Trabajo. La Habana, Cuba, March 12 – 16, 2007. p 38.
- Córdoba L, van Wendel de Joode B, Ramírez F, Herrero MV, Wesseling C. Estudio retrospectivo sobre un brote de embarazos no exitosos en una comunidad melonera. Jornadas de Investigación de la Universidad Nacional. Heredia, Costa Rica, May 2007.
- Córdoba L, van Wendel de Joode B, Ramírez F, Herrero M, Wesseling, C. Retrospective analysis of an outbreak of non-successful pregnancies in a community nearby a melon plantation. Medycyna Srodowiskowa. Vol. 10, N° 1, 2007, supplement 1.
- Córdoba L, Van Wendel de Joode B, Ramirez F, Herrero MV, Wesseling C. Retrospective analysis of an outbreak of non-successful pregnancy in a community nearby a melon plantation. Salud Pública de México, Edición Especial 2, 19th Conference of the International Society for Environmental Epidemiology (ISEE), Abstracts. 2007;49:E572.
- Protocol study on melon plantations in Lepanto and adverse pregnancy outcomes
- Report to Ministry of Health on Lepanto melon case.
- Report to the Lepanto community and study participants for melon case
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