

**Land Administration & Management,  
Mapping, Surveying and  
Aerial Photography**

May 2013

**Major Reference Projects**

COUNTRY	DESCRIPTION	YEARS	CLIENT	SIZE
ALBANIA	<b>Land Administration and Management Project, First Registration Supervision</b> ; activities and products are related to the technical and legal aspects of the registration of immovable property rights and other real rights recorded in the Registration Index Map and Immovable Property Kartela	2011-13	Ministry of Justice, Immovable Property Central Registration Office, Financed by the World Bank	144 Cadastral Zones
AUSTRALIA	Services of digital aerial camera and navigator for aerial photography	2007	IFMS - International Forestry Modelling Systems GmbH & Co. KG/ Digital Mapping Australia Pty Ltd.	
AZERBAIJAN	Public Investment Capacity Building Project in Azerbaijan: <b>Training on Cadastral Valuation of Lands</b>	2012	Ministry of Education of Azerbaijan / WB/IDA	
	<b>Aerial photography for National Digital Mapping</b> ; 1:40 000 in B & W, DGPS control, film processing and photo products, scanning	2000	JICA Study Team	60 000 km <sup>2</sup>
BANGLADESH	<b>Promote Access to Land in Bangladesh</b> ; to strengthen access to land and property rights for all citizens of Bangladesh	2012-15	Ministry of Land of Bangladesh / EuropeAid/132225/C/SER/BD, JV with NIRAS A/S and PDP Pty	
	Acquisition of <b>Satellite Imagery and Digital Elevation Model (DEM)</b> under the Project <b>Improvement of Digital Mapping System of Survey of Bangladesh</b> : satellite imagery and DTM acquisition and processing, procurement of hardware and software, factory and on-the-job training	2011-12	Survey of Bangladesh, JV with PASCO	
	Acquisition of <b>Digital Aerial Photography</b> as part of the project <b>"Improvement of Digital Mapping System of Survey of Bangladesh"</b> with the Survey of Bangladesh. Complete area of Bangladesh with ground resolution of 50 cm and five urban areas with ground resolution of 25 cm.	2010-12	Survey of Bangladesh, JV with PASCO	147 500 km <sup>2</sup>
	Procurement of Goods and Related Services for Digital Mapping Unit of Survey of Bangladesh as part of the project <b>"Improvement of Digital Mapping System of Survey of Bangladesh"</b> ; Complete production lines hardware and software of photogrammetry, GIS and cartography, installation including network, on-the-job training	2010-11	Survey of Bangladesh, JV with PASCO	
	<b>Population and Housing Census 2001</b> - Aerial Photography/ Mapping Services: - aerial photography and scanning work	1998-2000	Kevron Pty Ltd; UNOPS / Bangladesh Bureau of Statistics	105 000 km <sup>2</sup>
	<b>Bangladesh Mapping for Development 1:10 000, Coastal Area</b> ; Aerial Photography, GPS survey, photo mosaics, topographic mapping	1989-2000	EC and Ministry for Foreign Affairs of Finland / Bangladesh Inland Water Transport Authority	40 000 km <sup>2</sup>
	<b>Jamuna Bridge Mosaics 1:20 000 and 1:5 000</b> ; aerial photography, controlled mosaics	1987-1989	Rendell, Palmer & Tritton, Nedeco, Bangladesh Consultants	1 400 km <sup>2</sup> 440 km <sup>2</sup>
	<b>Third Flood Control and Drainage Project</b> ; Aerial photography 1:30 000 and 1:12 000 colour infrared and B&W, contour mapping 1:16 000 and 1:8 000, mapping 1:16 000	1986-1991	Bangladesh Water Development Board	4 000 km <sup>2</sup>
BELIZE	<b>Aerial Photography and Mapping</b> ; aerial photography 1:4 000, aerial triangulation, scanning, digital orthophotos, preparation of 174 Registry Index Maps	2003-06	Land Management Program, Ministry of Natural Resources and the Environment/IADB JV with Swedesurvey Ab, Sweden and GFA Terra Systems, Germany	115 km <sup>2</sup>
BOSNIA AND HERZEGOVINA	The Aerial Photography for a <b>Study on Establishing Digital Topographic Maps for Bosnia and Herzegovina</b> , 1:40 000 B&W	2003	JICA Study Team	51 000 km <sup>2</sup>
BURUNDI	<b>Digital aerial photography of Bujumbura and Giteka areas</b> for 1:5 000 and 1:25 000 digital mapping and orthophoto production; City centers with 30 cm ground resolution and the neighborhood of Bujumbura area with 50 cm ground resolution	2011	Geographic Institute of Burundi (IGEBU) / PASCO Corporation, Japan	300 km <sup>2</sup> 800 km <sup>2</sup>
CAMBODIA	<b>Feasibility Study</b> for a Potential Land Sector Project; Services of Legal Expert and Social and Public Consultation Expert	2011-12	KfW/GFA Consulting Group GmbH	
	LiDAR airborne laser scanning for the <b>Feasibility Study on Trans-Asian Railway in the Kingdom of Cambodia</b>	2009	Sok Sokha, Cambodia	500 km

<b>CAMBODIA</b>	<b>Land Titling Program and Development of a Modern Multi-Purpose Cadastral System (LASSP):</b> Information Dissemination and Community Participation and Land Management, Systematic Land Registration/Titling, Sporadic Land Registration/Titling, Development of Modern Multi-Purpose Cadastral System, Model Land Registration/Cadastral Offices, National Spatial Data Infrastructure (NSDI) Development, Private Sector Development for Land Administration	2009-13	Ministry for Land Management, Urban Planning and Construction (MLMUPC) / Ministry for Foreign Affairs of Finland	
	Aerial Photography and Digital Orthophotos; <b>The Tonle Sap Environmental Management Project (TSEMP):</b> Aerial photography in colour, 1:25 000 and 1:12 000, DTM and orthophotos 1:5 000 and 1:2 500	2004-05	ADB / Ministry of Agriculture, Forestry and Fisheries, The Department of Fisheries, Cambodia JV with Pasco Corporation	17 600 km <sup>2</sup>
	Aerial Photography and Digital Orthophotos; <b>Commune Council Development Project (CCDP):</b> Aerial photography 1:40 000 and orthophotos 1:10 000, and ground control and production of orthophotos from existing aerial photography	2004-06	ADB / Ministry of Interior, Department of Local Administration, Cambodia; JV with Pasco Corporation	52 000 km <sup>2</sup> 62 000 km <sup>2</sup>
	<b>Land Management and Administration Project (LMAP), Technical Assistance for Component 3; Land Titling Program and Development of a Land Registration System:</b> The project has delivered 1,012,512 title certificates, publicly displayed 1,096,242 parcels, surveyed and adjudicated 1,306,487 parcels	2002-08	Ministry for Foreign Affairs of Finland / Ministry for Land Management, Urban Planning and Construction (MLMUPC)	
	Precise levelling and surveying as part of the <b>Modelling of the Flow Regime in the Great Lake of Tonle Sap</b>	2001-02	Finnish Environmental Institute /Mekong River Commission	
	Aerial Photography for a <b>Study on the Establishment of GIS Base Data for the Kingdom of Cambodia, 1:40 000</b>	2001-03	JICA Study Team	60 000 km <sup>2</sup>
	<b>Stung Chinit Irrigation and Rural Infrastructure Project;</b> Aerial photography 1:15 000 and 1:10 000 in colour, scanning and orthophoto mapping 1:5 000, topographic surveys and mapping	2001-02	The Ministry of Water Resources and Meteorology, Cambodia	
	Land Management Specialist services for the Agricultural Policy Reform Support Project	2000-01	Asian Development Bank, ADB	
	<b>Cambodia Cadastral Project, Second Phase</b> Including aerial Photography - approx 55,000 titles were surveyed, displayed and issued during the project	2000-02	Ministry for Foreign Affairs of Finland / Ministry for Land Management, Urban Planning and Construction, Cambodia	
	<b>Cambodian Cadastral Mapping and Land Registration Pilot Project,</b> pilot area in Takeo province	1997-99	Ministry for Foreign Affairs of Finland /Land Titles Department	
	<b>Aerial Photography for Resources Mapping in Cambodia;</b> 1:25 000	1992-93 1994-96	EC, Government of Belgium, FINNIDA, UNDP / The Mekong Committee / The Mekong Secretariat	180 000 km <sup>2</sup>
<b>CAMEROON</b>	<b>Digital aerial photography</b> for the Forest Preservation Programme / Programme d'appui à la gestion forestière et faunique	2012-14	Ministère des Forêts et de la Faune, Cameroun / Japan International Cooperation System, JICS	36 380 km <sup>2</sup>
<b>CYPRUS</b>	<b>Digital Aerial Photography</b> in Cyprus with 20 cm ground resolution	2007-08	Department of Lands and Surveys of Cyprus	3 200 km <sup>2</sup>
<b>DJIBOUTI</b>	<b>Aerial Photography</b> for Djibouti Geographic Information System Creation, 20 cm GSD	2012	JICA Study Team/PASCO Corporation	300 km <sup>2</sup>
<b>EGYPT</b>	<b>Regional Water Supply and Sanitation Project in Beni Suef Governorate;</b> GPS survey and aerial photography of 7 towns, digital mapping 1:1 000	1995-96 1999-2000	Plancenter Ltd / Regional Water Supply and Sanitation Project / Beni Suef Governorate / Ministry for Foreign Affairs of Finland	2 500 ha
	<b>Eastern Desert and Nile Valley Topographic Mapping,</b> Phase 2; 1:50 000 33 map sheets, 1:250 000 compilation of 13 map sheets	1994-96	Ministry for Foreign Affairs of Finland / Egyptian Survey Authority	30 000 km <sup>2</sup> 200 000 km <sup>2</sup>
	<b>Eastern Desert and Nile Valley Topographic Mapping</b> 1:50 000; aerial photography, GPS survey, topographic mapping, digital mapping, printing of map sheets in five colours	1987-93	Ministry for Foreign Affairs of Finland / Egyptian Survey Authority	250 000 km <sup>2</sup>
<b>EL SALVADOR</b>	Aerial Photography for the <b>Study for Establishment of National Basic Data in the Republic of El Salvador;</b> 1:40 000	1999	JICA Study Team	3 700 km <sup>2</sup>
<b>ETHIOPIA</b>	<b>Mid-term Review of the Technical assistance</b> to the Watershed Monitoring and Evaluation in Ethiopia	2012	Ministry for Foreign Affairs of Finland	
	<b>REILA: Social-economic baseline study</b> and assessment of the impact of the villagisation	2012	Ministry for Foreign Affairs of Finland	
	Expert services for "Land Information and Registration System (LIRS) for Harar City"	2010	Harar City Municipality Government / Pasco Corporation	
<b>FINLAND</b>	LiDAR airborne laser scanning from helicopter, point classification approx. 20 points/m <sup>2</sup>	2012	City of Helsinki	101 km <sup>2</sup>
	LiDAR airborne laser scanning from helicopter, approx. 10 points/m <sup>2</sup>	2012	Municipalities of Vantaa and Kerava	285 km <sup>2</sup>
	LiDAR airborne laser scanning for forest inventory , point classification, approx. 1 point/m <sup>2</sup>	2012 2011	Forestry Center of Pohjois-Karjala Forestry Center of Pirkanmaa	3 695 km <sup>2</sup> 6 000 km <sup>2</sup> 4 560 km <sup>2</sup>

<b>FINLAND</b>	Digital aerial photography and production of orthophotos with ground resolution 0.10-0.20 m	2011	Municipalities of Tornio, Vaasa and Forssa	1 300 km <sup>2</sup>
	LiDAR airborne laser scanning and aerial photography for forest inventory, point classification, approx. 1 point/m <sup>2</sup>	2010-11	Forestry Centers of Etelä-Pohjanmaa and Pirkanmaa, and Metsähallitus	21 300 km <sup>2</sup>
	FWF- airborne laser scanning at Hyttiälä area and Evo areas	2010	University of Helsinki/ Department of Forest Sciences and Geodetic Institute of Finland	7 500 ha + 7 500 ha
	LiDAR airborne laser scanning from helicopter, point classification approx. 10 points/m <sup>2</sup> , Evo area	2009	University of Helsinki, Finnish Geodetic Institute	2 000 ha
	LiDAR airborne laser scanning 750 m from helicopter and aircraft, point classification approx. 1-10 points/m <sup>2</sup> , for forest inventory	2008	UPM, University of Helsinki, Forest Management Association of Pohjois-Karjala, Metsähallitus	83 000 ha
	LiDAR airborne laser scanning approx. 0,7 points/m <sup>2</sup> from aircraft for height model of Finland	2008 2009	National Land Survey of Finland	10 000 km <sup>2</sup> 15 000 km <sup>2</sup>
	LiDAR airborne laser scanning 750m and 350 m from helicopter, point classification, approx. 14 points/m <sup>2</sup> , covering Espoo and Kauniainen municipalities in Helsinki region and in various parts of Finland for road design, mapping and power lines	2008	Destia Oy	Together approx. 1,500 km <sup>2</sup>
	LiDAR airborne laser scanning 1000 m by aircraft, point classification approx. 4 points/m <sup>2</sup> Nuukio area in Espoo and Hyttiälä area	2007	Finnish Geodetic Institute, University of Helsinki, Faculty of Forestry	220 km <sup>2</sup>
	LiDAR airborne laser scanning 750 m from helicopter, point classification approx. 5 points/m <sup>2</sup> , 400 separate target areas for volumetric measurements	2007-08	Destia Oy (former National Road Administration of Finland)	100 km <sup>2</sup>
	LiDAR airborne laser scanning 400 m/200 m, point classification approx. 10 points/m <sup>2</sup>	2006	Cities of Helsinki and Vantaa	94 km <sup>2</sup>
	Digital aerial photography and production of orthophotos with ground resolution 50 cm	2006 2007 2008 2009	Ministry of Agriculture and Forestry / Agency for Rural Affairs	25 000 km <sup>2</sup> 21 850 km <sup>2</sup> 15 000 km <sup>2</sup> 18 000 km <sup>2</sup>
	Digital aerial photography and production of orthophotos	2006	Municipalities of Raisio, Masku, Lieto and Rusko	400 km <sup>2</sup>
	Digital aerial photography for forestry	2006	Forestry Centers of Finland and Finnish Forest Research Institute	4 000 km <sup>2</sup>
	Digital aerial photography of Pori with 16 cm ground resolution, approx. 2100 images, aerial triangulation	2005	Municipality of Pori	150 km <sup>2</sup>
	Aerial photography of Rauma, 1:8 000, 500 images, and aerial triangulation, DTM covering 350 ha	2005	Municipality of Rauma	200 km <sup>2</sup>
	Color aerial photography 1:6 500 and digital mapping 1:1000	2005-06 2005-08	Municipality of Ulvila Municipality of Nastola	1 000 ha 3 500 ha
	Color aerial photography 1:16 000 and production of orthophotos with ground resolution 20 cm	2004	Municipality of Jyväskylä	140 km <sup>2</sup>
<b>GEORGIA</b>	Aerial Photography for the <b>Study on Establishing Digital Topographic Maps in Georgia</b> ; Aerial photography in B&W in scale 1:40 000, approx. 2 000 photos, film processing, two sets of contact prints, DGPS photo center positioning and flight index	2005	JICA Study Team	30 000 km <sup>2</sup>
<b>GHANA</b>	<b>Provision of Orthophoto Maps in Colour for Various Parts of Ghana</b> ; aerial photography 1:10 000, production of digital orthophotos, submission of printed orthophotos	2007-11	Land Administration Project Unit Ministry of Lands, Forestry and Mines / NDF	15 000 km <sup>2</sup>
<b>GUATEMALA</b>	<b>Obtención de Imágenes Digitales a Escala 1:20 000 (resolución 0.40m) y Elaboración de Ortofoto (resolución 0.50m) de la República de Guatemala</b> - digital aerial photography in color and color infrared with 0.40 m ground resolution and production of orthophotos with 0.50 m resolution 2 <sup>nd</sup> phase: Production of digital base map in scale 1:50 000 for the Republic of Guatemala	2005-08	Ministerio de Agricultura, Ganadería y Alimentación -MAGA- / Centro de Cooperación Internacional para la Preinversión y Diversificación Agrícola (CIPREDA) JV with Pasco Corporation	108 900 km <sup>2</sup>
	Aerial Photography on the <b>Study for Establishment of base Maps and Hazard Maps for GIS in the Republic of Guatemala</b> ; 1:20 000 and 1:40 000, total 3000 photos	2000	JICA Study Team	32 000 km <sup>2</sup>
	<b>Aerial Photography</b> , B&W, 1:5 000 and 1:20 000	2000	Stereocarto S.L., Spain	186 km <sup>2</sup> 4 600 km <sup>2</sup>
<b>GUAM</b>	<b>Digital aerial photography</b> of Guam, Saipan, Tinian and Farallon de Medenilla for production of orthophotos	2009	PASCO Corporation, Japan	130 km <sup>2</sup>
<b>HONDURAS</b>	<b>Servicios de No-Consultoría para (a) la toma de Fotografías Aéreas y elaboración de Ortofoto de un área aproximada de 3,482.18 Km<sup>2</sup> del Departamento de Cortés, y (b) investigación de campo y actualización catastral de predios urbanos y rurales en los Municipios de Puerto Cortés, Choloma, La Lima, San Pedro Sula y Villanueva en el Departamento de Cortés, República de Honduras</b> : - aerial photography 1:20 000 and 1:6 000 and production of orthophotos 1:5 000 and 1:1 000 - field surveys and updating of cadastre	2009-12	Programa de Administración de Tierras de Honduras (PATH) / NDF	3 482 km <sup>2</sup>

<b>HONDURAS</b>	<b>Toma de Fotografía Aérea del Municipio De San Pedro Sula, Departamento de Cortes en la República de Honduras;</b> elaboración de ortofotos escala 1:1 000 de la zona urbana de la ciudad de San Pedro Sula -aerial photography in scale 1:6 000, orthophotos 1:1 000	2005-06	Programa de Administración de Tierras de Honduras (PATH) (Land Administration Programme) / UNDP Honduras / World Bank JV with Pasco Corporation	400 km <sup>2</sup> 290 km <sup>2</sup>
<b>JAPAN</b>	<b>NTT Orthophoto Project,</b> 2 500 photos	1999-2000	Nakanihon Air Service	5 700 km <sup>2</sup>
<b>KOSOVO</b>	<b>The Photographing of the Territory of Kosovo and Delivery of Services and Products to Kosovo Cadastral Agency;</b> Color aerial photography in scales 1:6 000, 1:10 000, 1:20 000 and 1:40 000, ground control survey, aerial triangulation, DTM and digital orthophotos	2004-05	Kosovo Cadastral Agency/ Provisional Institutions of Self Government, Ministry of Public Services JV with Pasco Corporation	5 700 km <sup>2</sup> 16 550 km <sup>2</sup>
<b>LAO PDR</b>	<b>LiDAR laser scanning for planned railway line</b> Vientiane-Boten, 1.5 km wide and approx. 5 points/m <sup>2</sup> from helicopter	2010-11	China Railway Eryuan Engineering Group	450 km
	<b>Strengthening National Geographic Services in Lao PDR;</b> Including aerial photography, ground control surveys, production of orthophotos and topographic maps for a pilot area	2010-14	National Geographic Department of Lao PDR /Ministry for Foreign Affairs of Finland	71 000 km <sup>2</sup> 90 000 km <sup>2</sup>
	LiDAR airborne laser scanning from 2000 m for the <b>"Study on Options for Monitoring Changes in Forest-Based Carbon Stock in Lao PDR"</b> , point classification approx. 0.5 points/m <sup>2</sup>	2009	Indufor Oy / Ministry for Foreign Affairs of Finland	250 km <sup>2</sup>
	<b>Nam Theun I Hydropower Project,</b> Survey Works for Basic Design; Ground control surveys, topographic mapping, cross section surveys, levelling, map compilation	2005-06	Gamuda Berhad, Malaysia and Electrowatt-Ekono, Switzerland	
	<b>Nam Ngiiep Dam Site Surveying,</b> Aerial photography, ground surveying	2001-02	Finnmap Lao/ JICA Study Team/ Nippon Koei	
	<b>The Topographic Mapping of Vientiane Plain;</b> aerial photography 1:15 000, ground control, 1:5 000 digital mapping, training and establishment of quality management system to NGD	1999-2003	Ministry for Foreign Affairs of Finland / National Geographic Department of Lao PDR (NGD)	3 600 km <sup>2</sup>
	<b>Aerial photography</b> for Bokeo province, 1:25 000 B & W, photoproducts	1998-99	GTZ / Rural Development Project in Bokeo, IFAD / Bokeo Food Security Project, NCA / UNDP / Luang Nam Tha Drug Reduction project; Jointly with Thai Flying and Lao Flying Services	8 900 km <sup>2</sup>
	<b>Aerial Photography</b> for the Establishment of GIS Base Map Data for the Mekong River Basin in Lao PDR, 1:50 000, 4 200 photos	1998-99	JICA Study Team	150 000 km <sup>2</sup>
	<b>Photomapping Services for Land Titling,</b> 1:1 000 / 1:4 000 scales	1998-99	Ministry of Finance, Lao PDR	3 200 map sheets
	<b>Aerial Photography for Land Titling Project</b> in scale 1:16 000	1997-98	Ministry of Finance, Lao PDR	10 600 km <sup>2</sup>
	<b>Aerial photography</b> 1: 20 000 in colour, registration of photo centres, photo products, enlargements and mosaics 1:5 000	1995-96	Nam Ngum Watershed Management and Conservation Project (NAWACOP)	3 200 km <sup>2</sup>
<b>LATVIA</b>	<b>Digital Aerial Photography</b> of Area of Republic of Latvia for Cartographical Data Renovation with 50 cm ground resolution	2007 2008	Latvian Geospatial Information Agency	33 100 km <sup>2</sup> 25 700 km <sup>2</sup>
<b>LIBYA</b>	<b>Sebha Region;</b> Aerial photography 1:6000 and 1:15 000, map compilation 1:1 000 and 1:5 000, including planning of 58 towns	1980-86	Secretariat of Municipalities, Tripoli	1 000 km <sup>2</sup> 30 000 ha
	<b>El Khalij;</b> Aerial photography 1:6 000 and 1:15 000 and 1:80 000, map compilation 1:1 000 and 1:5 000 and 1:50 000 including planning of 13 towns	1979-85	Secretariat of Municipalities, Tripoli	65 000 km <sup>2</sup>
<b>LITHUANIA</b>	<b>Digital aerial photography</b> of 10 cities in Lithuania with 15 cm ground resolution	2007	FIT Conseil, France	2 475 km <sup>2</sup>
<b>MACEDONIA</b>	<b>Real Estate Cadastre and Registration Project</b> - Preparation of Digital Cadastre Plans, Survey of Objects and Preparation of Inventory Lists for 54 Cadastral Municipalities	2007-10	State Authority for Geodetic Works	6285 ha
<b>MAURITANIA</b>	Aerial Photography 1:20 000 for the <b>Study on Formulation of Geographic Data Base of Nouakchott in the Islamic Republic of Mauritania</b>	2007	JICA Study Team	2 000 km <sup>2</sup>
<b>MONGOLIA</b>	Aerial photography for production of digital orthophotos for the <b>Cadastral Survey &amp; Land Registration Project</b>	2005	ADB/PASCO Corporation	300 km <sup>2</sup>
<b>MYANMAR</b>	<b>National 1:50 000 Topographic Mapping</b> in the Union of Myanmar; - <b>establishment of Myanmar Datum 2000</b> coordinate system for the whole country - 1:50 000 <b>aerial photography</b> 668 000 km <sup>2</sup> - <b>GPS surveys and computations</b> for densification of Myanmar Datum 2000 geodetic network 668 000 km <sup>2</sup> , 483 stations - <b>1:50 000 Topographic mapping</b> covering 668 000 km <sup>2</sup> (1134 map sheets in six colors)	2000-08	Survey Department, Ministry of Agriculture and Irrigation, Myanmar In consortium with Suntac Technologies	668 000 km <sup>2</sup>
	Aerial Surveys and the Development of Poppy Monitoring System and Land Classification for <b>Wa Region</b>	1999	UNOPS/UNDCP	3 000 km <sup>2</sup>

<b>NEPAL</b>	LiDAR airborne laser scanning and high resolution aerial photography from helicopter for the <b>Forest Resource Assessment (FRA) program</b> ; LiDAR scanning flying altitude 2000m with point classification of approx. 0.5 points/m <sup>2</sup> ; CIR images with 0.45 m resolution. Approx. 5% (100,000 ha) of the total project area of 2 million hectares was covered with LiDAR sampling blocks.	2011	Department of Forest Research and Survey, DFRS / Ministry of Forests and Soil Conservation with main constructor Indufor Oy, financing by Ministry for Foreign Affairs of Finland	100 000 ha
	LiDAR airborne laser scanning for Preparation of Orthophoto map and 0.25 m contours of <b>Bheri-Babai Diversion Project in Nepal</b> ; LiDAR scanning flying altitude 2000m with point classification 1 point/m <sup>2</sup> ; aerial photography flying altitude 2000 m and 40 cm ground resolution; colour orthophotos with 40cm resolution; contours with 0.25 m interval	2011	Mid-western Irrigation Directorate, Surkhet / JV Full Bright Consultancy (Pvt) Ltd and Environment & Resource Management Conduant (P.) Ltd	1 100 km <sup>2</sup>
	Establishment of a GIS for Changu Narayan Temple Area, Pilot Project – <b>Nepal Antiquities Information System (NAIS)</b> ; Digital orthophoto and base map 1:5 000, training	2005	Embassy of Finland in Nepal / Fund for Local Cooperation	
	Digital Maps for <b>Syafu Bensi-Rasuwa Gadhi Highway Project</b> ; 1:5 000/1:10 000 for 20 km long highway corridor	2001	Embassy of China in Nepal / The Department of Roads	
	<b>Digital orthophoto maps</b> for Kathmandu, Bhaktapur, Sindhuli, Lalitpur, Kavre and Makwanpur project sites	2001	Bagmati Watershed Management Project	56 400 ha
	<b>Census 2001 Mapping Project for Housing and Population Enumeration</b> ; aerial photography, digital orthophoto production, digitalization of topographic maps	1998-2003	Ministry for Foreign Affairs of Finland /DANNIDA	
	<b>Khimti-Bhaktapur Power Line</b> ; GPS Survey, digital mapping and photogrammetric survey of longitudinal and cross sections for power line design and construction management	1996	PVO Group, Finland	95 km
	<b>Western Nepal Topographic Mapping Project</b> ; 1:25 000 and 1:50 000; Aerial photography with GPS positioning of photo centers, GPS survey, topographic mapping, printing of approx. 268 map sheets	1995-2002	Ministry for Foreign Affairs of Finland / HMG Survey Department of Nepal	82 000 km <sup>2</sup>
	<b>Tribhuvan International Airport Digital Mapping</b> including aerial photography, ground survey and digital mapping	1995	Acres Norr Lea Consortium, Canada / ADB	470 ha
	<b>Eastern Nepal Topographic Mapping project</b> ; 1:25 000 and 1:50 000; Aerial photography with GPS positioning of photo centers, GPS survey, topographic mapping, printing of approx. 292 map sheets, digital pilot project	1992-97	FINNIDA / HMG Survey Department of Nepal	55 000 km <sup>2</sup> 6 000 km <sup>2</sup>
<b>NICARAGUA</b>	Aerial Photography for the <b>Study for Establishment of Base Maps and Hazard Maps for GIS in the Republic of Nicaragua</b> : B&W 1:40 000 and colour 1:20 000, photoproducts, DGPS	2004	JICA Study Team/ Nicaraguan Institute of Territory Studies Managua, Nicaragua	19 000 km <sup>2</sup>
<b>PALESTINE</b>	<b>West Bank and Gaza Land Administration Project</b> ; Systematic Land Administration Advisory Services	2005-08	Ministry for Foreign Affairs of Finland / Palestinian Land Authority (World Bank)	
<b>PANAMA</b>	<b>Restitución Fotogramétrica, Ortofotografías y Ortofotomapas Vectoriales Digitales en la República de Panamá</b> (Incluye los vuelos fotogramétricos digitales): digital aerial photography in scales 1:5 000, 1:8 000 and 1:15 000, ground control, DTM, digital orthophotos with ground resolution 10 cm, 16 cm and 30 cm, digital vector maps of urban areas	2007-09	Land Administration Project Panama/Programa Nacional de Administración de Tierras (PRONAT) - JVwith Pasco Corporation	1,100 km <sup>2</sup> 1,050 km <sup>2</sup> 227 km <sup>2</sup> 14 km <sup>2</sup>
<b>POLAND</b>	<b>Improving Land Consolidation System in Poland</b>	1996-97	Ministry of Agriculture / in association with ILIS, EGIS and IUNG	
<b>ROMANIA</b>	<b>Digitalization and identification of physical blocks and other landscape elements on the territory of Romania</b> , in the GIS environment, and supply of relating graphical materials, LOT 4 - North-West; Land Parcel Identification System (LPIS): Agricultural area 33 609 km <sup>2</sup> , number of municipalities 679	2006	Agency for Payments and Intervention for Agriculture, Romania; Consortium with Pasco Corporation	total area 61 932 km <sup>2</sup>
	<b>Consultancy services</b> towards preparation for modernization and re-structuring the semi-subsistence farms in order to increase their economic viability, to mitigate the social effects of reduction of their number and to provide assistance to agricultural farms in complying with Common Agriculture Policy.	2006-07	Ministry of Public Finance, Central Finance and Contracts Unit, Romania / EuropeAid/120518/D/SV/RO; Consortium with Swedesurvey	
	<b>Aerial Photography and Orthophotomapping – Aero 03/2002</b> ; aerial photography in scales 1:25 000 and 1: 12 000 and production of orthophotos in scales 1:5 000 and 1:2 000	2002-2004	National Office for Cadastre, Geodesy and Cartography (NOCGC) of Romania	15 000 km <sup>2</sup>
<b>ROMANIA</b>	<b>Aerial Photography</b> , colour infra-red 1:25 000, three sets of contact prints, one set of diapositives, one set of enlargements produced in Romania.	1998	JICA Study Team / Japan Forest Engineering Consultants Foundation	16 000 km <sup>2</sup>
<b>SAUDI ARABIA</b>	<b>Project 134 – Digital Line Mapping of Hail Region</b> ; Digital Topographic Line Mapping in scales 1:1 000, 1:2 500, 1:10 000 and 1:20 000, Colour Land-use Thematic Mapping, Field Verification and Completion, Colour Orthophoto Mapping, 1:20 000 Scale 5 Colour Mapping, Municipality Information Unit	2008-12	Ministry of Municipal and Rural Affairs, Deputy Ministry for Land and Surveying	46 000 km <sup>2</sup> 17 500 km <sup>2</sup> 16 800 km <sup>2</sup>

	<b>Project 126 – Aerial Photography, Al Bahah Region;</b> aerial photography in scales 1:5 500, 1: 22 500 and 1:45 000, scanning and aerial triangulation	2005-06	Ministry of Municipal and Rural Affairs, Deputy Ministry for Land and Surveying	12 000 km <sup>2</sup>
	<b>Digital Aerial Photography</b> from Jeddah to Riyadh and from Dammam to Jubail for railroad with 20 cm ground resolution, approx. 2 500 images	2005	EG&G Middle East	
	<b>Al Baha Regional Planning Project;</b> Updating of maps 1:10 000, 1:2500 and 1:1 000, aerial photography and production of new maps 1:10 000, 1:2500 and 1:1000	1981-86	Ministry of Municipal and Rural Affairs, Riyadh	200 km <sup>2</sup>
<b>SRI LANKA</b>	<b>Aerial Photography</b> for "Digital Topographic Mapping Project for Reconstruction of Northern Region in Democratic Socialist Republic of Sri Lanka"; 1:20 000, DGPS, photo products	2010-11	Kokusai Kogyo Co., Ltd, Japan	9 000 km <sup>2</sup>
<b>SWEDEN</b>	<b>LiDAR airborne laser scanning</b> , point classification, approx. 25 points/m <sup>2</sup> , production of DTM and orthophotos	2012	Uppsala kommun/municipality	87 km <sup>2</sup>
	Digital Aerial photography and orthophotos for the <b>National Inventory of Landscapes in Sweden</b> , NILS programme; 107 and 30 sample areas of 25 km <sup>2</sup> each in various parts of Sweden	2010 2011	Sveriges lantbruksuniversitet, SLU/Swedish University of Agricultural Sciences	2675 km <sup>2</sup> 750 km <sup>2</sup>
<b>TAJIKISTAN</b>	<b>Support to the Mapping and Certification Capacity of the State Land Committee;</b> preparation and implementation of the Cadastral Coordination Programme, training of the technical personnel of the State Land Committee	2006-11	State Land Committee of Tajikistan (SLC), the FAZO Institut; EuropeAid/122738/C/SER/TJ JV with Hulla & Co. Human Dynamics	
<b>TANZANIA</b>	<b>Sustainable Management of Land and Environment (SMOLE),</b> Programme Preparatory Phase and Mapping Component Projects, Zanzibar	2003-06	Ministry for Foreign Affairs of Finland / Department of Surveys & Urban Planning, Ministry of Water, Construction, Energy and Lands, Government of Zanzibar	
<b>THAILAND</b>	Project for Comprehensive Flood management Plan for the Chao Phraya River Basin; <b>LiDAR Airborne Laser Scanning Survey</b>	2012	PASCO Corporation /Kokusai Kogyo/Asia Air Survey; JICA	24 700 km <sup>2</sup>
	<b>Aerial Photography Project / Department of Town and City Planning;</b> 1:15 000 in color, 13 cities and towns, over 5000 photos	2003-04	Thai Flying Services Co., Ltd	
	<b>Mapping Project for Natural Resources and Property Management,</b> Part I: Aerial Photography 1:25 000 in color	2001-06	Ministry of Agriculture and Co-operatives, JV with Thai Flying Service, Kevron Aerial Survey, IGN France International	342 500 km <sup>2</sup>
	<b>Land Titling Project, Aerial Photography, Project Year 16;</b> 1:15 000, approx. 25 500 photos and photoproducts	2000-01	Department of Lands, Ministry of Interior; JV with Thai Flying Service, Kevron Aerial Survey, IGN France International	22 300 km <sup>2</sup>
	<b>Aerial photography</b> in 1:15 000 scale, ground control for 9 municipalities	1999-2001	Department of Town and Country Planning, Ministry of Interior, Thailand	3 700 km <sup>2</sup>
	<b>Land Titling Project, Aerial Photography, Project Year 11,</b> 1:50 000, 1:15 000 and 1:6 000, approx. 100,000 photos and photoproducts	1994-95	Department of Lands, Ministry of Interior; JV with Thai Flying Service, Kevron Aerial Survey, IGN France International	95 000km <sup>2</sup>
	<b>Aerial photography</b> of Chiang Mai Area 1:50 000	1991	Thai Flying Service / Royal Thai Survey Department	30 000 km <sup>2</sup>
<b>THAILAND, LAO PDR, CAMBODIA AND VIETNAM</b>	<b>Watershed Classification Project (WSC);</b> Digital Terrain Model from 1:50 000 maps by scanning and vectorizing of the Mekong River Basin in Laos, Vietnam and Cambodia	1994-95	University of Berne, Institute of Geography, Group for Development and Environment, Switzerland	Approx. 600 map sheets
	<b>Updating of the Hydrographic Atlas of the Lower Mekong Basin;</b> Aerial photography 1:40 000, hydrographic survey, topographic mapping 1:20 000 in Laos, Thailand, Cambodia and Vietnam	1988-99	FINNIDA / The Mekong River Commission / The Mekong Secretariat	2000 km along the Mekong river
<b>TURKEY</b>	LiDAR airborne laser scanning of <b>Nabucco gas pipeline</b>	2009-10	Sebat Harita, Turkey	1100+750 km
	<b>Digital Aerial Photography of Istanbul</b> with 30 cm ground resolution, approx 3 800 images	2005	MNG Software Co. Inc., Turkey	1 600 km <sup>2</sup>
	<b>Digital map for mobile phone network planning</b> covering Istanbul, Ankara and Izmir	1999-2000	FINNMAP-AS / TURKCELL	5 400 km <sup>2</sup>
	<b>Digital map for mobile phone network design;</b> The whole area of Turkey with 100 m resolution and city maps for Istanbul, Ankara and Izmir with 10 m resolution	1998-99	FINNMAP-AS, Turkey/Nokia Telecommunications Elektronik Ltd.	800 000 km <sup>2</sup> 5 000 km <sup>2</sup>
<b>UZBEKISTAN</b>	<b>Land Registration in Uzbekistan;</b> Technical Assistance in legislation for Land Registration, Cadastre, Valuation and Land Administration; Pilot Project	2000-02	EC/TACIS JV with Blominfo A/S, Denmark	
<b>VIETNAM</b>	Organization development for the <b>land administration reform</b> at district 1 in Ho Chi Minh City	2000	Soil & Water Ltd, Finland/UNDP	