

Environment and Natural Resource Management



We deliver projects to improve sustainable development for primary industries including agriculture, fisheries, forestry and mining. To address issues such as watershed management, environmental impact, land rehabilitation and biodiversity conservation, we adopt an integrated approach across sectors.

Our work focuses on maintaining the balance between improving people's productivity working the land and sea, while ensuring sustainable environmental outcomes. Our longstanding involvement in this sector allows us to anticipate environmental issues and provide appropriate responses and solutions.

Cardno is skilled in the identification, feasibility, assessment and design involving irrigated agriculture, community water supply, land rehabilitation, forestry, livestock production, fisheries and environmental planning. Training and human resource development is a key element of the projects implemented.

- ▶ Promoting sustainable commercial agriculture, fishing and livestock practices through appropriate capacity building, training and policy
- ▶ Promoting the conservation of coastal ecosystems by building alternative income streams and supporting coastal habitat assessments.
- ▶ Implementing integrated water and agricultural programs encompassing policy development, community resource planning, resource monitoring, education and training and awareness-raising
- ▶ Delivering programs that support governments to provide sustainable and economically rewarding farming activities in environmentally sensitive areas
- ▶ Supporting local authorities to improve general resource management and sustainability of local livelihoods in environmentally sustainable ways.

Improved environmental management raises resource efficiency and works towards alleviating poverty. At Cardno, we recognise the importance of improved environmental management and work with governments and communities to build their capacity to manage the delicate balance of raising productivity while using and protecting resources in a sustainable way.



Our projects raise awareness and assist implementation of environmentally sustainable policies and practices.

Rural Coastal Fisheries Development Project, Papua New Guinea

Client National Fisheries Authority, Papua New Guinea
Donor European Commission
Company Cardno Emerging Markets (UK)

This Project contributes to sustainable improvement in the social and economic welfare of rural coastal communities in Papua New Guinea. Cardno Agrisytems manages this Project to support:

- ▶ Increases in rural family incomes
- ▶ Participation in the sustainable harvesting and improved marketing of marine resources
- ▶ Increases in annual earnings overall.

Support to the Improved Forest Management for Sustainable Livelihoods Project, Malawi

Client Ministry of Mines, Natural Resources and Environment, Government of Malawi
Donor European Commission
Company Cardno Emerging Markets (UK)

This Project is set to improve the livelihoods of forest dependent communities (men, women, boys and girls) through improved sustainable collaborative management of forests both in forest reserves and customary land. Cardno implements this Project which aims to assist with:

- ▶ Increased household income, security and wellbeing
- ▶ Forest and non-forest income generating activities
- ▶ Enhanced forest productivity
- ▶ Increased area under sustainable management.

Water and Agricultural Management in Hebei, China

Client AusAID
Company Cardno Emerging Markets (Australia)

Cardno provides technical assistance in the delivery of efficient management of water resources by improving the capacity of institutions and communities through sustainable agricultural practices. This Project facilitates:

- ▶ Awareness raising of the need to modify water use practices
- ▶ Institutional strengthening to promote efficient water management policy
- ▶ Implementation of innovative management practices that complement traditional engineering solutions.

Marine and Coastal Resources Management Project, Package A: Coastal Marine Resources Planning and Management, Indonesia

Client Ministry of Marine Affairs and Fisheries
Donor Asian Development Bank
Company Cardno Emerging Markets (Australia)

Instigated by the Government of Indonesia, this Project's aim is to restore livelihood capacity and introduce sustainable management of marine resources and biodiversity in a decentralised government framework. The methodology will:

- ▶ Strengthen local capacity to assess and manage marine and coastal resources
- ▶ Improve the availability of and access to quality spatial and biodiversity data
- ▶ Prepare reliable mapping and resource plans
- ▶ Support alternative income activities in coastal zones.

Coral Reef Rehabilitation and Management Project (COREMAP 1), Indonesia

Client Indonesian Institute of Sciences, Jakarta (LIPI)
Donor World Bank
Company Cardno Emerging Markets (Australia)

Working with local communities, this Project tested a range of community based options for the sustainable management of marine resources. Cardno provided project management and advice on coral reef strategy and policy development, community-based monitoring of coral reefs, alternative income generation analysis and commercial business analysis. The Project was successful in establishing:

- ▶ A viable framework for a national coral reef management system in Indonesia
- ▶ Surveillance and enforcement mechanisms
- ▶ Alternative income generation activities for fishers.

Balkh River Basin Integrated Water Resources Management Project, Afghanistan

Client Government of Afghanistan
Donor Asian Development Bank (ADB)
Company Cardno Emerging Markets (UK)

This Project will improve water resource management and associated agricultural productivity to reduce rural poverty in the Balkh River basin. Technical assistance is designed to progress:

- ▶ Development of new institutional arrangements for integrated water resource management
- ▶ Strengthening of the traditional water management mechanisms through a community-based approach
- ▶ Support to the rehabilitation and upgrading of traditional irrigation systems.

Technical Assistance in Support of the Amu Darya River basin Management Program, Afghanistan

Client Government of Afghanistan
Donor European Commission
Company Cardno Emerging Markets (UK)

The Program will provide technical advice and project management services to enhance the sustainable development of the river basin water management approach in Kokcha and Panj watersheds of the Amu Darya River basin.

About Cardno

Cardno is an integrated professional services provider, locally delivering the specialist advice to create or improve physical and social infrastructure that underpins communities around the globe. Our team is comprised of leading advisors who plan, design, manage and deliver sustainable projects and programs.

Contact

nrm@cardno.com
 www.cardno.com