

Detailed Work plans of SUMAMAD 2009 study sites

	Activities supporting:		
Study Site	Objective 1: Fostering scientific drylands research	Objective 2: Preparation of policy-relevant guidelines for decision-makers in drylands	Objective 3: Promoting sustainable livelihoods in drylands
Bolivia (Bolivian Highlands)	<ul style="list-style-type: none"> • Evaluation of soil and water management regarding fertility amendments and fertilizers use and drought management in relation to the needs of the newly predominating production systems. • Evaluate recent and future climatic variability in the Andean Highlands. • Evaluation of the past 35 years of climate data to determine exact nature of weather risks. • Settling of farmers' fields under deficit irrigation. • Management of soil amendments. 	<ul style="list-style-type: none"> • Develop questionnaires and application of participatory evaluations of quinoa market insertion and potentials. • Organize a national workshop focusing on management of Aqua crop and simulation models 	<ul style="list-style-type: none"> • Prepare a baseline assessment of community, household and individual livelihoods and risk perception.
Burkina Faso (Mare aux Hippopotames)	<ul style="list-style-type: none"> • Evaluation of land-use practices including the local viable know-how: 	<ul style="list-style-type: none"> • Documentation of different anticipation scenarios of anthropogenic and 	<ul style="list-style-type: none"> • Inventory of income generating activities: technical and economic

	<p>selection, monitoring and evaluation.</p> <ul style="list-style-type: none"> • Establishing experimental sites for demonstrations: conception and testing. • Presentation of pedagogic tools and sensitisation: conceptual framework, pedagogical kit. 	<p>natural phenomena.</p>	<p>evaluation.</p>
<p>China (Hundshandake Sandlands)</p>	<ul style="list-style-type: none"> • Comparative study of impacts between droppings from chicken and manure of cattle on the natural grassland. • Monitoring changes of the productivity of degraded sand land through replacing large- and middle-sized mammals with birds. • Changing land-use patterns in grasslands due to shifts from large and middle livestock to nearly non-destructive poultry. • Reference and explicability of new land-use practices for other dryland 	<ul style="list-style-type: none"> • National seminar on land productivity (biomass and carbon sequestration) and rainfall use efficiency as well as replacing large and middle mammals with birds for income generation 	<ul style="list-style-type: none"> • Explore opportunities for alternative income-generating activities such as chicken farming and organic food production industry in Hundshandake Sandland available through joint efforts of scientists, entrepreneurs, local society and local government. • Possibility of having clean drinking water for human consumption coming from groundwater sources. • Training for local people on bird raising (chicken and goose)

	countries.		
Egypt (Omayed Biosphere Reserve)	<p>Interpretation of high-resolution satellite images of transformed habitats.</p> <ul style="list-style-type: none"> • Assessment of the impacts and value of transformed habitats. • Assessment of the nature and scale of climate change impacts • Assessing social and biophysical vulnerability of local communities to climate change. 	<ul style="list-style-type: none"> • Development of a management plan towards rational development of the multi-social, multi-use and multi-targeted areas. • Examination of the developed scenarios from the last SUMAMAD phase as compared to local policy assessments. • National workshop on governance mechanisms with reference to public participation, and accountability • Training for young scientists and students in the field 	<ul style="list-style-type: none"> • Rehabilitation of degraded ecosystems by propagation of endangered species • Examination of the needs of the poor local community. • Continuation with provisioning of sewing machines for women. • Provision of fresh drinking water through installation of solar water desalination systems.
India (Thar Desert)	<ul style="list-style-type: none"> • Studies on status of rangeland and animals. 		<ul style="list-style-type: none"> • Livelihood security by alternative income generation through medicinal plants. • Implementation of rangeland, run-off harvesting and animal nutrition plans. • Enhancing water-use efficiency in Khadis. • Extensive monitoring and mapping of socio-economic factors

			influencing pastoral life
Iran (Gareh Bygone Plain)	<ul style="list-style-type: none"> • Efficiency of floodwater spreading on net recharge of the aquifer. • The effect of floodwater irrigation on the performance of jojoba. • Monitoring of range and forest plants biodiversity. • The effects of the Sowbug on desertification control. 	<ul style="list-style-type: none"> • National workshops. 	<ul style="list-style-type: none"> • Spate irrigated barley trial. • Feasibility of producing organic honey from Kowsar floodwater spreading system. • Socio-economic analysis of income-generating alternatives. • Construction of floodwater spreading system. • Empowerment of cooperatives.
Jordan (Dana Biosphere Reserve)	<ul style="list-style-type: none"> • Prepare and implement a comprehensive baseline livestock and rangeland use survey and to identify current grazing activities. 	<ul style="list-style-type: none"> • Review relevant literature on participatory approaches and accessibility to community. 	<ul style="list-style-type: none"> • Characterize pastoral communities using the resources of Al Bara area.
Pakistan (Lal Suhanra Reserve / Dingarh Research Station)	<ul style="list-style-type: none"> • Rehabilitation of degraded rangelands of Cholistan drylands through scientific management of land, water and vegetation resources (activities include vegetation survey, soil survey, fencing the area, seeding of grasses). • Adoption of 	<ul style="list-style-type: none"> • National seminar (December) 	<ul style="list-style-type: none"> • Water source development

	protective measures to enhance carrying capacity and halt degradation of rangelands (e.g. livestock carrying capacity survey, range management etc.)		
Tunisia (Zeuss Koutine Watershed)	Undertake studies on i) groundwater recharge techniques, ii) exploitation of margins, iii) ecological impacts of Acacia plantations.	<ul style="list-style-type: none"> • Policy paper on climate change perception by local stakeholders. 	