

## Decision-Support Tool: ASPIRE

[http://www.engineersagainstopoverty.org/major\\_initiatives/aspire.cfm](http://www.engineersagainstopoverty.org/major_initiatives/aspire.cfm)

### Summary

ASPIRE provides an integrated planning, monitoring and evaluation tool for appraising the sustainability and poverty reduction performance of infrastructure projects. Developed through a partnership between Engineers Against Poverty (EAP) and Arup, the ASPIRE framework examines the social, environmental, economic and institutional dimensions of sustainability. It helps stakeholders involved in funding, commissioning and implementing infrastructure projects to understand and evaluate the implications of infrastructure provision and its contribution to sustainable development throughout the project cycle.

**Developer:** ARUP International Development, Engineers Against Poverty (EAP)

Applicable sectors				Function			
All Infrastructure	Water	Energy	Organisations	Design Guide	Option Appraisal	Construction Guide	Op&M Guide
<b>Countries</b>	All, particularly developing countries where poverty alleviation is a primary aim of infrastructure provision.			<b>Process summary</b>	<p>ASPIRE prescribes a ten-step assessment process starting from initiating the assessment, through to data collection and entry, review and reporting of final outputs in an assessment report.</p> <p>The process involves a definition of the assessment boundaries (potentially different to project boundaries) and identification of key stakeholders to be consulted.</p> <p>The framework sub-themes are reviewed for relevance, and a maximum of 10 can be eliminated (with justification). Review of policies and regulations sets compliance as a performance minimum.</p> <p>Data collection is carried out and used to inform allocation of a project score (1-5) for project performance against each sub-theme indicator.</p> <p>Results are aggregated into a traffic-light colour-coded visual of the ASPIRE wheel, with accompanying tables of indicator results.</p> <p>These are re-examined with project stakeholders, and finally an assessment report summarising results is produced.</p>		
<b>Deployment &amp; developments</b>	ASPIRE was developed based on Arup's decision-support tool SPeAR, for enabling pro-poor sustainable infrastructure in developing country contexts. The tool has been tested on projects in Kenya, Zambia, South Africa, Sri Lanka and the US.						
<b>Guidelines for sustainable design</b>	ASPIRE is not accompanied by guidelines for infrastructure design. Rather, during project scoring, each performance indicator is accompanied by a description of a best and worst case performance scenario to support users in allocating a score.						
<b>Use with other tools</b>	ASPIRE is quite unique as a decision-support tool for pro-poor infrastructure development and as yet has not been used in combination with other tools.						
<b>Level of support services</b>	ASPIRE is commercially available from Oasys Software. EAP and Arup International Development offer a range of support services including a one day training programme, customisation of ASPIRE to align with specific reporting requirements, the carrying out of independent assessments and working with organisations to review and certify their assessments.						
<b>Sustainability criteria</b>	<p>The ASPIRE sustainability framework is split into four dimensions:</p> <ul style="list-style-type: none"> <li>- Environment;</li> <li>- Society;</li> <li>- Economics;</li> <li>- Institution.</li> </ul> <p>This facilitates qualitative assessment against a total of 20 themes and 96 sub-themes.</p> <p>The institutional dimension was added to the three dimensions of the SPeAR framework, as it was felt that in developing countries the presence of institutional support to ensure regulation, operation and maintenance, cannot be taken for granted.</p>						
				<b>Design option appraisal functions</b>	<p>The ASPIRE software allows navigation from one sub-theme of the ASPIRE wheel (called the Keystone Diagram) to another and allocation of score of project performance for each.</p> <p>Each sub-theme is accompanied by a description, and narrative of a best and a worst case performance scenario.</p> <p>The user consults data collected and assigns a score from 1-5 (1 for worst, 5 for best case). The scores of all sub-themes within a theme are aggregated with equal weighting. (Although elimination of one sub-theme puts more weight on the scores of all others within the theme).</p> <p>Each theme score is represented using a traffic-light system (red, yellow, green).</p> <p>Results are displayed in colour on the Keystone Diagram along with tabulated results of sub-theme scores, to aid client and stakeholders in decision-making.</p>		

<p><b>Fee</b></p>	<p>ASPIRE can be purchased or rented. A Standalone License can be purchased for £250, where the software is locked to an individual machine but transferrable by the user to another machine.</p> <p>A Shared Licence can be purchased for £375 and activated on any number of machines. However only the number of licenses purchased can be used concurrently.</p> <p>Rental fees vary on whether the user wishes a 1, 3, 6 or 12 month rental period.</p>	<p><b>Level of materiality (tailoring)</b></p>	<p>During tailoring, the ASPIRE assessment allows elimination of up to 10 (out of 96) sustainability sub-themes from the assessment. The software prompts a request for justification as to why these are not relevant to the project.</p> <p>There is generally less flexibility than other decision-support tools. This is because it is felt that pro-poor infrastructure development requires consideration of the majority of ASPIRE themes in order to be effective.</p>
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### Case study

**Project:** InfraCo Africa Chyanyana Irrigation Pilot Project

**Client:** UK Department for International Development / Private Infrastructure Development Group (PIDG)

**Location:** Kafue District, Zambia

**Brief description:**

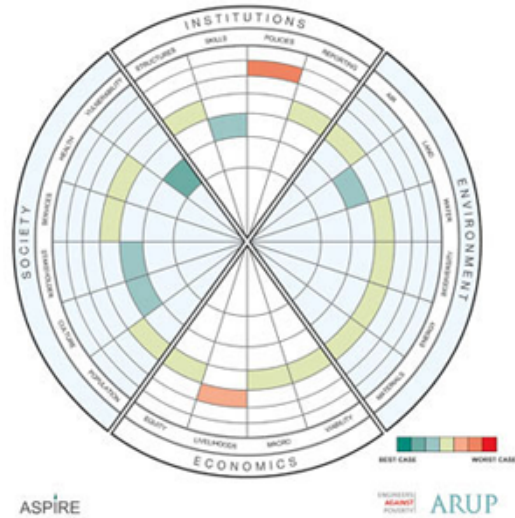
The Chyanyana irrigation project serves as a joint venture between a commercial farming enterprise and small-scale farmers in the Kafue district of Zambia. It was developed by InfraCo Africa, a project development company that aims to stimulate greater private investment in African infrastructure development.

Small farmers lack the means to buy capital intensive irrigation equipment, and as a result, they experience low yields and are limited to one annual growing season. Ten per cent of the smallholders depend on World Food Programme aid as a result of insufficient income generation from farming.

This pilot project sought to combine the land resources of smallholders into a commercially viable co-operative society in which farmers get access to irrigation, technical support and agronomy advice in exchange for setting aside a majority of their land for commercial farming. Irrigation is intended to support two crops per year and substantially higher yields per crop.

The project is expected to greatly increase smallholder incomes as well as access to more plentiful and varied crops, which will improve nutritional status, reduce dependency on existing food aid, and increase collective voice and bargaining power through the farmers co-operative.

This ASPIRE assessment was carried out by a DFID /PIDG team in consultation with local stakeholders in Zambia. The assessment was carried out at the Implementation stage of the project life cycle as a monitoring assessment. The indicators from the ASPIRE assessment were discussed by the PIDG team in Zambia with local stakeholders, and the outputs from the discussion were used as a basis for the ASPIRE assessment.



ASPIRE  
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For more information on this and other case-studies visit: [http://www.oasis-software.com/casestudies/casestudy/Infraco\\_africa\\_chyanyana\\_irrigation\\_pilot\\_project](http://www.oasis-software.com/casestudies/casestudy/Infraco_africa_chyanyana_irrigation_pilot_project)