

Research Application Summary

**Promoting the African endogenous innovation for sustainable development:  
The AFRICA-ai-JAPAN initiative**

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**Abstract**

The economic development of Africa is dependent on “home-grown” innovations geared to solving the Africa’s development challenges. A partnership among the Japanese academic institution, development partners, the private sector and the Jomo Kenyatta University of Agriculture and Technology (JKUAT) is promoting the intellectual support of Africa’s own endogenous innovations using the Japanese experiences. This is aimed at strengthening capacity and enhancing expertise required to formulate and implement policy that promote the culture of innovation at the national level. Through this process it is hoped that incorporating local knowledge, values and traditions in scientific innovations will lead to sustainable development. This paper provides an overview of a joint initiative by Japanese International Cooperation Agency (JICA) through the ‘AFRICA-ai-JAPAN project and JKUAT to promote the spirit of local innovations for sustainable development.

Key words: Endogenous knowledge, innovations, Japanese International Development Agency, Kenya

**Résumé**

Le développement économique de l’Afrique dépend des innovations de la «croissance locale» visant à résoudre les problèmes de développement de l’Afrique. Un partenariat entre l’institution japonaise universitaire, des partenaires en développement, le secteur privé et l’Université Jomo Kenyatta de l’Agriculture et de la Technologie (JKUAT), est entrain de promouvoir le soutien intellectuel de ses propres innovations endogènes de l’Afrique en utilisant les expériences japonaises. Ce programme vise à renforcer les capacités et l’amélioration de l’expertise nécessaires pour formuler et mettre en œuvre des politiques qui favorisent la culture de l’innovation au niveau national. Grâce à ce processus, il est à espérer que l’intégration des connaissances locales, des valeurs et des traditions dans les innovations scientifiques conduira au développement durable. Ce document donne un aperçu d’une initiative conjointe de l’Agence japonaise de Coopération Internationale (JICA) à travers le

projet «AFRIQUE-*ai*-JAPON et JKUAT de promouvoir l'esprit d'innovations locales pour le développement durable.

Mots clés: connaissances endogènes, innovations, Agence japonaise de développement international, le Kenya

## Overview

The “AFRICA-*ai*-JAPAN” project is an initiative supported by the Government of Japan, through Japanese International Cooperation Agency (JICA). The initiative recognize and promotes Science, Technology and Innovation (STI) in Africa as a practical driving force in developing a stronger and sustainable economies in Africa. The AFRICA-*ai*-JAPAN recognize the involvement of African innovation concept in development of qualified human resource as an indispensable means of implementation of a successful outcomes of STI related endeavours. For greater impact, it is critical that higher education institutions across Africa embrace the culture of promoting home-grown innovation concept in revitalizing and strengthening capacity of its human resource for the overall economic growth of the continent. Technologies developed from other countries that are transferred to African has not, in most cases, been beneficial in spurring development in Africa. The *African innovation 'ai'* concept (Fig. 1) is unique in that it promotes the utilization of local/endogenous knowledge, resources, experiences and wisdom generated and accumulated in Africa to solve Africa's own challenges. This is will enable Africa achieve her aspirations as set out in the Agenda 2063. The JKUAT, AFRICA-*ai*-JAPAN project, and the Pan African University Institute of Basic Sciences, Technology and Innovation (PAUSTI) have developed a tripartite approach

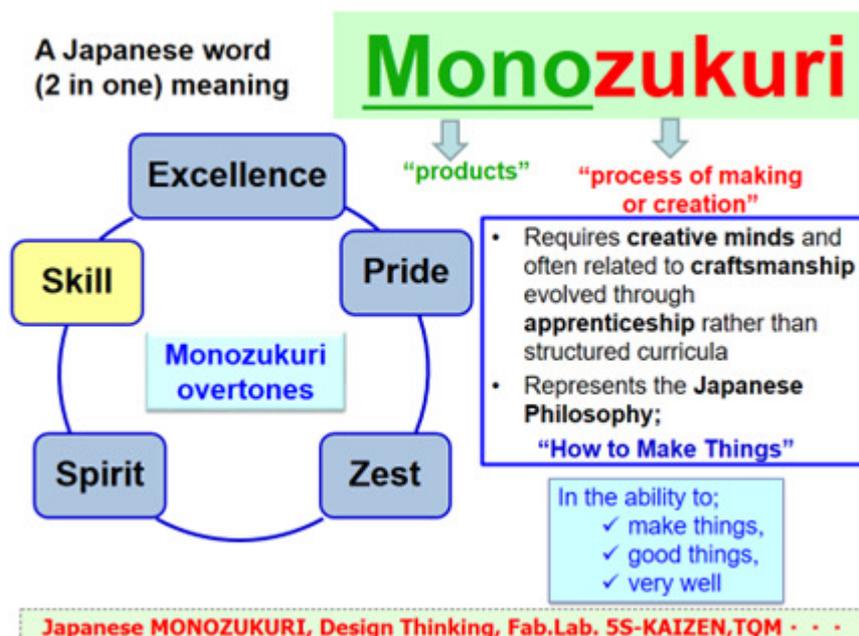


Figure 1. The Japanese concept of Monozukuri

that ensures African innovations are turned into products and enterprises. This approach ensure that the African partners works closely with Japanese counterparts at the university and industry level to ensure a paradigm shift in promoting African local knowledge and ideas geared for economic development. Through research focused thematic groups, task forces were developed and trained on the Japanese work ethic of “Kaizen” and “Monozukuri” (Nobuhide, 2002; Hirosaki, 2013; Reddy and Karim, 2013). These two concepts are believed to have enable Japanese scientists to turn ideas to products that are acceptable worldwide. The adoption of these type of ideologies is realised by joint research activities, joint seminars and continuous exchange of staff and students. The interactions will stimulate research on African endogenous knowledge as well as promote products developments based on African knowledge, spirit and innovations.

Current activities of the *ai* Project include the establishment of: 1) Innovation and Prototyping Integrated Centre (iPIC), 2) Innovation Centre for Bio-resources (iCB), 3) Innovation Centre for Molecular Biology and Biochemistry (iCMoB), and 4) Innovation Centre for Product, Development and Commercialization (iPDeC). These activities will support both PAUSTI and JKUAT staff and students to strengthen their knowledge and skills in engineering, agriculture and basic science areas. To enhance *ai* objectives, the Japanese side is soliciting contributions and collaborations to the project from Japanese Universities, Industries and Government Ministries/Agencies.

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