

When applying for JDS and preparing a research plan, you are advised to understand the **Sub-Program (SP)**, **background of the Component (CP)**, and **expected research areas** under the CP.

<b>Sub-Program (SP)</b> (Target priority area)	1. Transformation and Development of Industries
<b>Component (CP)</b> (Development issue in SP)	1-1. Strengthening of Connectivity

**[Important note]** The topics and expected research areas presented by JDS below **may not necessarily correspond** to all the curriculum offered by the host university. When preparing your research plan, **be sure to check the university's program and the research areas covered by the faculty members** (If your research plan does not match them, you are more likely to be rejected in the selection process).

### **CP background**

Cambodia is located in the heart of the Mekong River region. To take advantage of its geographically strategic location for its economic development, it is expected that Cambodia strengthens its partnerships with its neighboring countries in terms of infrastructure and human resources. In particular, around the Southern Economic Corridor and the Sihanoukville Port, it is essential for Cambodia to further improve its transportation infrastructure and logistics process.

With economic growth, urban expansion and the influx of population from rural areas to cities have led to an increase in urban population. This has resulted in chronic traffic congestion and associated air pollution, highlighting urban issues. To strengthen urban functions that drive economic activity, there is a need to improve urban transportation environments and enhance urban planning and land management capabilities.

Furthermore, the urgent issue is the expansion of power supply capacity to meet the increasing power demand driven by economic growth (which is expanding at an annual average rate of 16.6%). In fact, in the Phnom Penh metropolitan area, which accounts for over 50% of the domestic power demand, multiple substations are facing overloading due to insufficient transmission and distribution infrastructure, necessitating a stable power supply.

The Cambodian government has set the goal of achieving a carbon-neutral society by 2050. In addition to expanding the adoption of renewable energy and promoting efficient energy use through energy conservation, improving grid operation technologies is also urgent as the power generation mix becomes more complex.

In Cambodia, improving administrative capacity and establishing effective systems in the relevant field are key challenges, and the development of civil servants as the core administrative officials through the JDS project is expected.

### **Expected research areas**

Logistics, Transportation, National Land Planning, Urban Transportation, Urban Development (Urban Management, Urban Planning, Land Management), Building Systems, Electric Power and Energy, Carbon Neutrality