

農林省への質問表に対する回答

1. BASIC DATA ON AGRICULTURE

(1) Map availability

Q-1: How large scales of geographical maps are available, and which organization is responsible for preparing these maps?

ANSWER: (from DOP)
NAFRI

(2) Land use

Q-2: Please show land use data of recent five years applying the table form shown below
Permanent crops are sown or planted once, and then occupy the land for some years and need not be replanted after each annual harvest, such as cocoa, coffee and rubber.

Form of land use data	2001	2002	2003	2004	2005
Agricultural area	1,839	1,909	1,939	1,959	1,959
Arable land	880	950	980	1,000	1,000
Permanent crops	81	81	81	81	81
Permanent meadows and pastures	878	878	878	878	878
Forest Area	16,454	16,376	16,298	16,220	16,142
Other land	4,787	4,795	4,843	4,901	4,979
Total	23,080	23,080	23,080	23,080	23,080
Total Irrigated areas	5,144,414	521,725	258,136	371,676	535,900

Source: FAOSTAT except total irrigated areas, which are taken from Agricultural Statistics Year Book 2006)

(3) Metrological condition

Q-3: On metrological data, please answer the following questions.

1) Which organization is collecting the data?

ANSWER: (from DOP)
Department of Meteorology and Hydrology under Prime Minister's Office

2) How densely the weather stations are provided over the country?

21 stations (Source: <http://dmhlao.etlao.com/>)

3) How many years of data are available?

Refer to the above mentioned web page (because this department is not under MAF anymore, the detail information is not available for this survey)

(4) Soil condition

Q-4: On soil conditions of agriculture, please answer the following questions.

1) Do you have the following maps?

ANSWER: (from NAFRI) YES

2) If your answer of question 1) is “Yes,” please answer the following questions.

-Does the available map cover over the country? If “No.,” please show names of available areas/districts.

ANSWER: (from NAFRI)

Soil map at national level: scale: 1:1,000,000. Soil map, land suitability map, land use map

Soil map at provincial level: scale: 1:250,000. Soil map, land suitability map, land use map

Soil map at district level: scale: 1:50,000. Land zoning maps in 16 districts.

3) Which organization can provide the map for us?

ANSWER: (from NAFRI) National Geographic Department of PMO

4) Please describe outline of soil conditions on agriculture.

ANSWER: (from NAFRI) information can be obtained from Department of Meteorology and Hydrology under Prime Minister’s Office

(5) Hydrologic condition

Q-5: Please describe hydrologic conditions of agriculture.

ANSWER: (from DOI) Lao PDR is rich country of water resources. The Mekong tributaries in Lao PDR contribute some 35% of the whole lower Mekong basin runoff, or about 270,000 MCM. The water resources use is estimated at 5,700 MCM or equivalent to 2% of the resources available, of which 3,300 MCM is for irrigation and other consumption use. Main rivers of the Lao PDR dominantly consist of the first and second tributaries of the Mekong River. There are about 39 main tributaries in Mekong river basin. Main rivers that have bigger catchment area of more than 5,000 km², are the following 10 rivers: Nam Tha, Nam Ou, Nam Xuang, Nam Kan, Nam Ngum, Nam Kading, Xebangfai, Xe Bang Hiang, Xe Done, and Xe Kong. Nam Ngum River has huge dam reservoir in Vientiane Province. Total storage capacity of the dam is 7,000 MCM, and surface water area of reservoir attains 370 km² in rainy season. The primary objective of Nam Ngum dam is to generate hydro power.

(6) Agricultural employment

Q-6: Please show the following data for recent five years.

1) Total number of employment on agriculture

2) Percentage of the agricultural employment to the whole

ANSWER: (from DOA) no specific data is available

(7) Agricultural output of enterprise and households

Q-7: Please show agricultural production in US\$ and the share of agricultural enterprise (big farm) and households (small farm) for recent five years, applying the table form below.

Agriculture Sector GDP (million Kip)

2002	2001	2002	2003	2004	2005*
Crops	360,744	373,356	373,218	398,023	408,228
Livestock & Fisheries	207,107	216,664	227,282	238,303	244,971
Forestry	37,768	39,696	43,102	46,052	49,041

*estimate

Reference) Agricultural Statistics 1976 – 2005 & 2006, MAF

(8) Agricultural production

Q-8: Please show us production data of major crops for recent five year applying the table form below.

ANSWER: (from DOA) Refer to the agricultural statistics

Reference) Agricultural Statistics 1976 – 2005 & 2006, MAF

(9) Self-sufficiency of major food crops

Q-9: Please show data of self-sufficiency on major food crops for recent five years applying the following table form.

ANSWER: (from DOP) No specific data is available now. we do not have specific data for demand, therefore, we would like to set up the indicator for demand near future.

(10) Breeding animals

Q-10: Please show data of breeding animals applying the following data form.

ANSWER: (from DLF) No specific data is available now.

(11) Agricultural equipment and machinery

Q-11: Please show data of number of major agricultural equipment and machinery for recent five years applying the following table. Of course, you can add more machines in the table.

ANSWER: (from DOA) There used to be the department in charge of machinery and equipment, but no specific data is available now.

(Additional information)

According to “Lao Agricultural Census, 1998/1999 Highlights (2000)”, 39.4% of the surveyed farmers used draught animals for land preparation and 20.6% of the surveyed farmers used tractor.

(12) Output from fishery sector and forestry sector

Q-12: Please show data of output from fishery sector and forestry sector for recent five years applying the following table.

ANSWER: (from DOF, DLF) not available.

(Reference information) million kip

Year	Output from Forestry Sector
2002	39,696
2003	43,102
2004	43,645
2005	46,052
2006	49,042

Reference) Indicators for Monitoring of Forestry Sector Performance(draft), 2007, FSIP/DOF

(13) Number of employees in the Agricultural Ministry and the rate of English speaking staff

Q-13-1: How many employees does the Agricultural Ministry have?

ANSWER: (from Department of Organization and Personnel) 6,997 at 2007 (of which, 1341 persons, 19% is female)

Q-13-2 Approximately how many percent of the employee can speak English?

ANSWER: (from Department of Organization and Personnel)

Not available for exact no. of this question, but we think that over master degree holded officers usually have ability to speak English.

2. OUTLINE OF AGRICULTURAL PRODUCTION AND MACRO LEVEL AGRICULTURAL POLICY AND IMPLEMENTATION

2.1 Outline of Agricultural Production

(14) Outline of agricultural production

Q-14: Please describe outline of your country’s agricultural production and farming including the information on regional characteristics, production structure and technical traits.

ANSWER: (from DOP)

ANSWER: (from DOP) Production Structure: crops, livestock & fishery and forestry
Main crops are rice, sugarcane, cassava, vegetable, job’s tear, fruit tree, (over 40 crops for

consumption). Coffee (for Europe) tea, maize (for Thailand, China and Vietnam now increased upto 500,000t) and Cattle for export.

2.2 Macro-level Agricultural Policy and Implementation (1-1)

National Level

(15) Economical development program and agricultural development program

Q-15: Please summarize your government's economic development program and definition of agricultural development in the economic development program.

<補足>

(「長岡明[2006]「ラオス農林業の現状と課題」社団法人国際農林業協力・交流協会編『国際林業協力』 Vol. 29. No.2 pp.35-pp.43」からの参考情報)

2001～2010 年社会経済開発戦略

『2001～2010 年社会経済開発戦略』(Socio Economic Development Strategy for the Ten-Years 2001-2010) は、今後 10 年間を見越して、第 7 回党大会 (2001) において決定されたものである。同戦略では年平均 GDP 成長率を 7.5%、また、2010 年の目標年における国民一人当たり GDP を 700～750 ドルと設定している。この戦略全体の基本方針は、「着実なステップを通じて、経済の力強い成長の基礎を改善・確立する」というもので、特に農業セクターにあっても、これを重要方針としている。

国家成長・貧困撲滅戦略

『国家成長・貧困撲滅戦略』(National Growth and Poverty Eradication Strategy---NGPES) は、貧困撲滅に向けたラオスの包括的戦略フレームワークとして、その前身の『国家貧困撲滅プログラム』(National Poverty Eradication Program---NPEP) を受け、2004 年に公表された戦略である農林業は、教育、医療、交通インフラと並び、4 つの中心セクターの一つとして位置付けられている。また、その後の施策においてたびたび登場する 72 貧困郡 (うち 47 は最貧困郡) を規定したことで、極めて重要な戦略ペーパーである。

農林業セクターにおいては、次節 1.3 で後述する『2020 年ビジョン』に記載にされている dual economy (平野部と山間傾斜地の二元論) の概念による開発戦略を引用しつつ、地域に適した土地利用や農業生態的な地域区分に注目した地域重点型開発アプローチ (area-focused development approach) を重視すべきことが述べられている。また、優先的開発分野として、食料自給確保、洪水・干魃・疾病など脆弱性の緩和、農産加工を通じた高付加価値による収入向上などを取り上げるとともに、7 つの優先政策として、市場指向、人材開発、農業多様化などに言及している。さらに次節 1.3 で後述する JICA 開発調査によるアクションプランにおける優先プロジェクト/プログラムをそのまま引用して、貧困削減向けの優先プロジェクトとしている。

社会経済開発計画 (2006～2010)

2006 年に公表された『社会経済開発計画 (2006～2010)』(National Socio Economic Development Plan---NSEDP) は、ラオスにとって、2010 年までの国の社会・経済の基

本施策となる重要な計画であるとともに、前述『2001～2010年社会経済開発戦略』の後半期間をカバーし、その目標を達成するための重要な手段でもあって、「市場経済メカニズムに基づく迅速かつ安定した社会経済の発展」がその基本的方向である。

農林業セクターは、NGPES と全く同様に、貧困削減のための4つの優先セクターの一つとされ、年平均 GDP 成長率を 4.0%（全セクターでは 7.5%）としている。内容としては、商品作物生産の発展、商業的農業の振興を通じた輸出農産物の増大、生産・加工への新技術導入・適用、研修による農村地域の技術向上、他セクターとの連携強化を通じた高付加価値化による生計向上、新規農業インフラの整備、を6つの目標として掲げている。また、コメの年間生産量目標 320～330 万トン筆頭に、コーヒー、ゴム、茶、トウモロコシ、キャッサバ等の商品作物生産の振興、新技術導入による生産性向上、農産加工業の振興を開発の方向としている。また、その実行手段として、作目ごとの開発優先地域を指定するとともに、各県が2～3の優先作目を選定すべきことや、地域住民のローンへの簡易なアクセスなど農業金融関係についても提起されている。

第8回党大会決定 2006～2010年開発計画

『第8回党大会決定 2006～2010年開発計画』（Plan for Developing-Decision of the 8th Party-Government Congress for 2006-2010）は、第8回党大会（2006年）の決定及び NSEDP の推進を具体化することを目途に、2006年5月に首相府から公表されたもので、目標を達成するために、合計で11本のプログラムと111本の優先プロジェクトを規定している。

2007-2008年社会経済開発計画

『2007-2008年社会経済開発計画』（Socio Economic Development Plan for 2007-2008）は、国会承認を経て2007年7月に公表されたもので、NSEDP の単年度版ブレイクダウンであり、年間 GDP 成長率を8%と見込んでいる。農林業セクターについては、GDP 自体は前年比3%増としているものの、他セクターの伸びが著しいことから、GDP に占める割合は38.6%と初めて4割を下回り、同35.7%である鉱工業セクターに、数年内には追い越されそうな見込み数値になっている。そのほかの注目すべき指標としては、コメ生産量については年間330万トン生産（2010年）へのステップとして2008年は287万トン、焼畑については面積を1万ヘクタール以下（前年度1万4400ヘクタール）、従事世帯数を1万5000世帯未満（前年度2万1000世帯）に削減することを目指している。

(16) Outline of the present agricultural development program/strategy

Q-16: Please describe your country's agricultural development program or development strategy paper.

2020年までの農林業開発ビジョン

『2020年までの農林業開発ビジョン』（Vision on Agricultural-Forestry Development

until 2020) は、ADB の支援により 1998 年頃 (推定。資料に作成年の記載がなく不明) に作成され、ラオス農林省 (Ministry of Agriculture and Forestry、以下 MAF) から公表されたものである。このビジョンは第 4 回党大会 (1986 年) で決定された政策ガイドライン、2000 年までの国・地域の各種計画などを基に、2020 年までの農林業セクターの発展の方向性、農林業開発の基本的方向などが述べられている。

具体的には、国全体の年平均 GDP 成長率目標を 7~8% とする中で、農林業については、植生及び土壌に合致した土地利用として、傾斜度によって農林業用地を 3 区分するゾーニングを行っている (農地、丘陵地、山岳急傾斜地)。そして各ゾーンで栽培すべき作物 (畜産、水産を含む) の種類とその生産目標量等を規定するとともに、ゾーニングした地域ごとに、目標達成のための調査・研究事項を提唱している。

農業セクター戦略ビジョン (The Government's Strategic Vision for Agricultural Sector)

前記ビジョン同様、Asian Development Bank (以下 ADB) の支援により、言わばその「増補改訂版」として 1999 年に策定されたのがこの『農業セクター戦略ビジョン』(The Government's Strategic Vision for Agricultural Sector) (通称「戦略ビジョン」) である。ここでは、前ビジョンで提示されたゾーニングの考えが、平野部と山間傾斜地という二つの区分で記載されている (この二元論は、その後の文書などで「dual economy」と呼ばれている)。すなわち、平野部においては、農業における市場経済化を進展させるために、商品作物生産の一層の振興を通じた農業の多様化・高付加価値化、農産加工業の振興、マーケット情報システム構築への支援などを進める一方、自給生産が大宗を占める山間傾斜地においては、生産性を向上させ、商品経済により接近するよう、定住農業への転換、生計安定、道路インフラの整備などを図ることに主眼が置かれている。さらに、ラオス農林省の事業実施体制強化、人材開発など 7 つのテーマを掲げ、それぞれのアプローチも提示している。

ラオス国農業総合開発計画調査

『ラオス国農業総合開発計画調査』(Master Plan Study on Integrated Agricultural Development in Lao PDR) は、前記両ビジョンを上位計画として実施され、2001 年に公表された JICA による開発調査である。ここでは、ラオス全土を対象に総合的な調査が行われ、現状、農業ポテンシャル、開発の方向性等を検討・分析した上で、土地・水資源管理、作物生産、焼畑安定など 10 のサブセクターを設定し、2020 年に向けた農業総合開発アクションプランとして、合計 110 のプロジェクト/プログラムを提案している。

これは開発調査であって国家計画ではないが、幾つかの国家計画にその内容が引用されているほどの重要な文書である。しかも、調査は極めて網羅的であるとともに、アクションプランにおいては、プロジェクト/プログラムの実施優先順位を付け、資金計画にも言及するなど、今後の農業開発を考える上での貴重な資料であり、その重要性を認める日本以外のドナーもある。

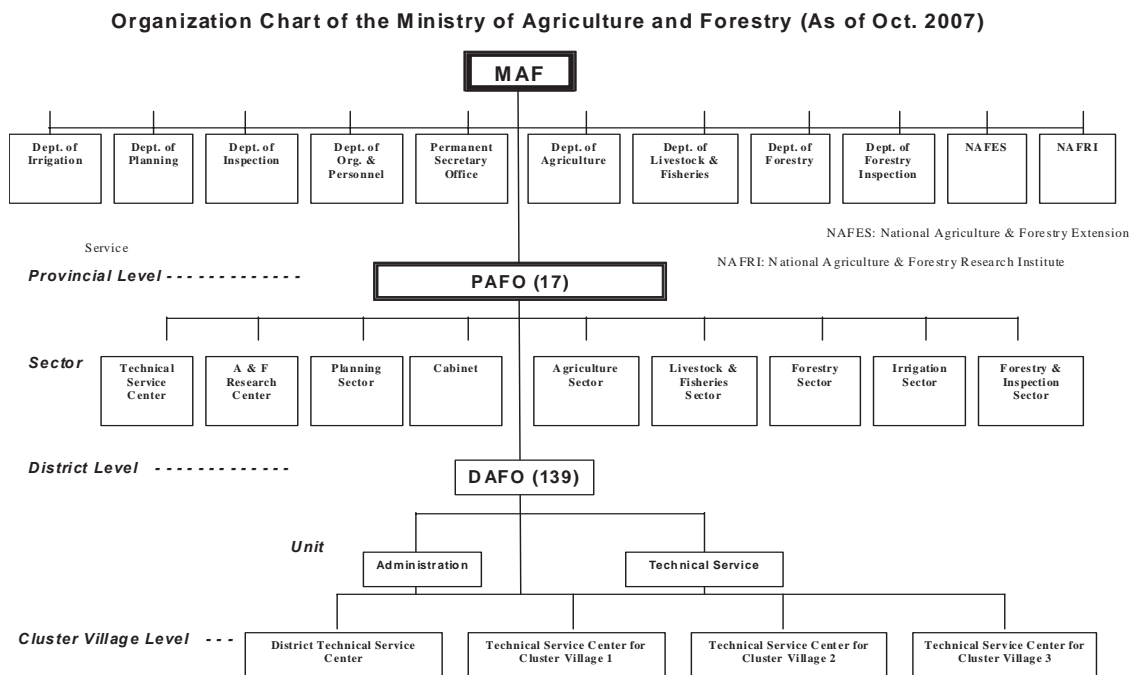
第6次農林業開発5か年計画

『第6次農林業開発5か年計画』(The 6th Agriculture and Forestry Development Plan in 5 Years [2006-2010]) は、NSEDP、党中央委員会の文書等に準拠して策定、2006年9月に公表されたもので、NSEDPを推進するためという位置付けであり、そのための指針が、4つのターゲットと13のアプローチ(4 Targets and 13 Measures)という分かりやすい形で列挙されている。

4つのターゲットとは、1) 食料安全保障、2) 商業的農業生産の振興、3) 焼畑農業の削減、4) 持続的な森林管理及び利用と保全のバランス、の4項目である。それぞれのターゲットにおいては、例えば、食料安全保障にあつては、農業セクターの年平均GDP成長率3.4%、2010年までに330万トンの年間コメ生産を達成するといった目標が設定されている。また、13のアプローチはターゲットを達成するための手段であり、生産地域、種子、普及、村落開発クラスター、灌漑等について取り上げている。この計画は、2010年までの農政における中心的存在であり、全ての施策はこれに合致すべきものという存在になっているという点で、MAFにとっては最重要な計画である。

(17) Organization chart of the Ministry of Agriculture and Food

Q-17: Please show the organization chart in which relationships among divisions and units of the headquarters and local branches are presented with systematic chart diagram.



Source) JICA Laos Office

(18) Budget of agricultural development

Q-18 Please show the budget of your ministry and the share in the total government budget for recent five years applying the following table.

ANSWER: (from DOP) refer to attachment for MAF central and provincial, we do not have information for total government budget.

ANSWER: (from DOP) refer to attachment for MAF central and provincial, we do not have total government budget.

(19) Land ownership/Land reform

Q-19: Please describe your country's land reform program.

(参考情報) The Land and Forest Allocation Program was implemented under the Central Committee for Land and Forest Allocation, with MAF as the leading agency. But now the committee is dissolved and MAF is responsible for implementation. Annual implementation of the Land and Allocation Program is reported from province to NAFES. Upto FY2004/2005 39% of total area has been allocated to 46% of the total household. Average land and forest allocation per village is about 1,281ha. In fact, implementation of land and forest allocation program has not been proceeding since 2000 because of insufficient budget.(source: Indicators for Monitoring of Forestry Sector Performance(draft), 2007, FSIP/DOF)

(20) Management system of trading agricultural products.

Q-20-1: How does the Government manage domestic market of agricultural products?

Q-20-2: Does the Government provide a special law or regulation to manage the trading? If it has, please show the name and outline of the law/regulation.

Q-20-3: If the Government provides a special unit such a Trade and Tariff Division, please describe the name, function and organization of the unit.

ANSWER: (from DOP) No particular government system exist for management of the market, and it is under private sector. If further information shall be required, please contact with Ministry of Commerce.

(21) Agricultural census

Q-21-1: Does the Government have agricultural census?

ANSWER (from DOP): Yes

Q-21-2: If it has the census, what year is the latest published edition?

ANSWER: (from DOP) 1998/1999 issued in February 2000

(22) Capacity development of the Government

Q-22: What is your training system of the Government staff?

ANSWER: (from Department of Organization and Personnel)

We have internal and external (which are supported by donors) training

Local level

(23) Local policy

Q-23: Please describe your Government's regional policy.

ANSWER (from DOP)

Pursuance the No. 09/ PMO Degree and No. 01/NA Degree

- According to the No. 09/PMO Degree and No. 01/NA Degree, the government is trying to establish the Kum Ban village cluster development approach in order to support the development of village activities in the provinces country wise.
- Alongside with the cluster approach; the agriculture sector will also establish the Technical Service Center (TSC) for supporting the development of farming activities.

(24) Activities of Non Governmental Organization (NGO)

{ Q-24-1: Are there any NGO for agriculture?

{ Q-24-2: If your answer is "Yes," please list up these NGOs and describe purpose and outline of activities of each NGO.

ANSWER (from NAFES) There are some activities, but no specific data is available.

(参考情報) <http://www.directoryofngos.org/index.cfm>(NGO ディレクトリー)

3. INFORMATION ON SUSTAINABLE AGRICULTURAL PRODUCTION (1)

3.1 Expanding Agricultural Production and Improving Productivity (1-2)

3.1.1 Stable seed supplies (1-2-5-2)

{ (25) Present condition of production and reproduction of seeds and the delivery

Q-25: What is the present condition of production & reproduction of seeds and the delivery?

{ (26) Way of accelerating extension of the high yield variety

Q-26: In your country, how does the Government promote extension of the high yield variety?

{ (27) Self-reproduction of seeds by smallholders

Q-27-1: In your country, do farmers reproduce seeds at their farms?

Q-27-2: If your answer is "Yes," does the Government support to improve their self-reproduction techniques?

Q-27-3: If your answer of Q-27-2 is "Yes," please describe the supporting system.

< 稲種子増殖普及システム改善計画(RISEP)関連資料、専門家への聞き取りによる情報 >

ラオス政府は食料安全保障を達成するために米の増産・単収増のための戦略として質の高い改良品種の種子を増殖し、農民に普及させることを目指している。MAFは国際稲研究所(IRRI)の協力によりラオスに適した高品質(収量が高い、耐病性がある、食味が良い)な稲の改良品種のNAFRIを中心に育成済みである。

しかしながら現状では国・県における稲種子増殖・普及の管理システムが全くないために稲種子の需要把握やそれを踏まえた生産・配布計画の策定ができていない状況である。またラオスにて原種、さらに種子センターや種子センターと契約した稲種子生産農家にて保証種子を生産しているが種子センター、稲種子生産農家ともに種子生産の栽培管理や乾燥・選別といった種子調製の技術レベルが低いため、生産される稲種子の品質は低く、生産量も少ない。さらに稲種子の普及については増殖した種子を種子センターが直接農民に販売しているのが一般的であり、県・郡の普及部門との連携がなく、農民に十分に普及していない。

このため、IRRI の協力によりラオスに適した高品質な稲の品質が育成されているにもかかわらず、高品種の稲種子が農民の手元に十分届いていないため、JICA の技プロで稲種子増殖普及システム改善計画(RISEP)を 2006 年 8 月から 2011 年 7 月までの予定で実施中である。

改良品種と在来品種の普及の割合は地域によって大きく異なる。メコン川沿いの平野地域の水田では灌漑施設が山間地域に比して整備されているので、特に乾季稲作での改良品種の普及率は高い。一方、山間地域の水田では、まだ改良品種の普及活動が十分におこなわれているとはいえ、農民の改良品種に対する知識も低いことから、在来品種の栽培がほとんどである。(RISEP 関連資料より) またプロジェクト専門家への聞き取りでは米、稲というのはラオス人にとって空気のようなものであり、在来品種を直採取していた人たちが改良品種に変わったから種買わなければならないことや、在来品種には肥料をやらずに改良品種を広めるときに肥料を買わなければならないということを農民に理解してもらうのが難しいと述べている。

3.1.2. Stable supply and appropriate use of fertilizers (1-2-5-4)

(28) Present condition of fertilizer application

Q-28: Please describe the present condition of fertilizer application.

ANSWER: (from DOA) Base on Agriculture Law (1998), Article 27, 28 and 29 on Fertilizer and Animal Feed

MAF issues Fertilizer Regulation (2000) focusing on how to control fertilizer utilization but not how to apply fertilizer.

- Refer to this regulation DOA has Register System for imported fertilizer and animal feed such as for raw material to produce fertilizer in country.
- There are 2 factories that import raw materials and mix and pack in country.
- There are about 4 bio-fertilizer factories.
- More than 50% of farmers prefer not to use fertilizer and/or bio-fertilizer due to the expensive cost. However, fertilizer and/or bio-fertilizer are utilized for rice and large scale farming (commercial agricultural products).

(29) Amounts of chemical fertilizer application for recent five years

Q-29: Please show the data of chemical fertilizer application of recent five year applying the following data form.

ANSWER: (from DOA) No specific data is available

(30) Provision of fertilizer application criteria and the contents

{ Q-30-1: Does the Government provide fertilizer application criteria?

Q-30-2: If your answer is “Yes,” please describe outline of the criteria.

ANSWER: (from DOA) There is no regulation for fertilizer application. However, there is a fertilizer application guideline and manual used by most agricultural technical staff. So, application criteria will be suggested by DAFO staff. For example of using with rice is 90N 30P 30K.

(31) Provision of quality evaluation criteria and fertilizer registration system

{ Q-31-1: Does the Government provide quality evaluation criteria and fertilizer registration system?

Q-31-2: If your answer is “Yes,” please describe outline of the criteria and registration system.

ANSWER: (from DOA)

- DOA Form
- Registration Certificate from original country of the products. It is compulsory to have this.
- Certificate from related institute such as Soil Analysis Center, NAFRI
- Some PPC can also certify
- If all necessary documents are correct, DOA will issue the Certificate with code related to item such as pesticide, fertilizer and seed.
- The certificate will valid for 2 years. This can be extended by using the same code.

(32) Conditions of soil diagnosis, fertilizer selection and capability of evaluation institute

Q-32-1: Does the Government carry out soil diagnosis service for farmers?

Q-32-2: If your answer is “Yes,” please describe outline of the service system.

Q-32-3: Does the Government carry out fertilizer recommendation service for the result of soil diagnosis?

Q-32-4: If your answer of Q-32-3 is “Yes,” please describe outline of the service system.

Q-32-5: If your answer of Q-32-1 is “Yes,” please describe the capability of the evaluation institutes such as number of institute, total number of researchers and staff, list of test items of evaluation.

ANSWER: (from DOA) By extension workers (mention above)

(33) List of imported fertilizer and total import amount per year

Q-33: Please list up the imported fertilizer, total imported amount per year for recent five years and names of the exporting counties, applying the following form.

(34) List of domestic fertilizer and total import amount per year

Q-34: Please list up the fertilizers that are produced in your country, and production amounts per year for recent five years, applying the following form.

ANSWER: (from DOA) No specific data is available

< 参考情報 >

	TOTAL FERTILIZER					N	P ₂ O ₅	K ₂ O
	(t)					(t)		
	1980	1990	2000	2001	2002	2002	2002	2002
ラオス	4,000	1,500	6,000	12,200	7,000	3,300	2,100	1,400
タイ	275,100	1,043,700	1,560,800	1,684,000	1,700,600	1,018,600	408,100	273,800
ベトナム	155,100	560,200	2,267,000	1,906,500	1,975,200	1,063,200	506,000	406,000

Reference) FAOSTAT

(35) Condition of organic fertilizer application

Q-35: What is the present condition of organic fertilizer application?

ANSWER: (from DOA) Bio-fertilizer is not widely used due to its cost. However, some projects promote this but not cover in large areas.

3.1.3. Appropriate use of agro-chemicals (1-2-5-3)

(36) Amounts of agricultural chemicals' application for recent five years

Q-36: Please show amounts of agricultural chemicals' application for recent five years, applying the following table form.

ANSWER: (from DOA) No specific data is available

(37) Criteria of tolerance for agricultural chemical residue and standards of chemical application

Q-37-1: Does the Government provide the criteria of tolerance for agricultural chemical residue and standards of chemical application?

Q-37-2: If your answer is "Yes," please list up these criteria and standards, and describe outline of each criterion and standard.

ANSWER: (from DOA) NO.Laos follows FAO MRL/CODE and ASEAN which is also follow FAO. There is no own MRL.

DOA and all technical staff will encourage and suggest farmers to carefully read structure of chemical application (on the product bag or product manual). Unfortunately, some suppliers do not have knowledge to recommend farmers (just sell

their products), and chemical protection equipment and materials such as glove, mask and so on are rarely available for farmers. However, farmers do not widely use agricultural chemical.

(38) Alternatives of applying agricultural chemicals

Q-38-1: Do your country farmers apply alternatives of agricultural chemicals such as natural enemies of pests?

Q-38-2: If your answer is “Yes,” please list up the alternatives.

Q-38-3: If your answer of Q-35-1 is “Yes,” how does the Government extend these alternatives?

ANSWER: (from DOA) Botanical pesticide and natural enemies example Beauveria Promote farmers to produce by themselves. Some can be produced in PPC IPM project supports this (Norway-by FAO).

(39) Monitoring of agricultural chemicals and publication system

Q-39: What is the Government’s monitoring and publication system of applying agricultural chemicals?

ANSWER: (from DOA) DOA is preparing awareness raising materials based on pesticide regulation (same as fertilizer regulation)

3.1.
4

Agricultural machinery and equipment (1-2-5-1)

(40) Present conditions of using agricultural machinery and equipment

Q-40: Please describe the present condition of agricultural machinery.

ANSWER: (from Japanese Expert) 牛、水牛で耕しているものはほとんど見ない。ハンドトラクター、乗用型の利用率が高い。利用率というのは所有率ということではなく、トラクターを所有している人自体はそれほど多くなく（中国の国境に近いところからは中国から入ってきたりしている）、賃耕（トラクター所有者がトラクターを持って行って耕す）しているのが現状。Interviewee of NAFES mentioned the percentage of the farmer who has tractor shall be under 10 % as a whole.

(41) Renting system of the machinery

Q-41-1: Do farmers rent agricultural machinery?

Q-41-2: If your answer is “Yes,” please describe the conditions such as how many farmers rent, what kinds of machinery are rent and others.

ANSWER: (from DOA) 政府による取り組みはほとんど行われておらず、農民間で行われているとのことであった。また、プロジェクト専門家によると 40 のような現状につき、農機具を“借りる”、というシステムは存在しないとのこと。

(42) Domestic industry of producing agricultural machinery and equipment

Q-42: Please list up name, capital and number of employees of the domestic maker of agricultural machinery and equipment.

ANSWER: (from DOA) No specific data is available

3.1.5 Post harvest (1-2-2-4)

(43) Present conditions of post harvest

Q-43: Please describe the present conditions of threshing, drying, milling, maintaining quality and freshness of food, and storing, processing, selecting and wrapping agricultural products.

ANSWER: (from DOA) There is a project at Clean Agriculture Development Center at Vankham that promote post harvest technology.

< 参考情報 >

Threshing:

メコン川沿いの平坦地：脱穀機の普及率高い。農家自体が所有するのではなく、業者（脱穀を専門にする人）がいる。山岳地帯：手で脱穀しているケースが多い。ルアンナムタのケースでは打ちつけ機を利用している。足踏み脱穀も入ってきている。

Drying: 収穫時に水田で乾かしてその後の乾燥は行わない。必要な場合は家でござなどを引いて行う。

Milling: 全国的に rice milling 村に一つ、二つはある。生産が多いところにはもっとあるところもある。個人経営で小規模なのが特徴。

Maintaining quality and freshness of food : 特になし。

Storing: 米の貯蔵庫は高床式倉庫で個人で貯蔵。大規模なものがないわけではないが、利用は少ない。20年～30年前に共同組合を作って強制出荷をやっていた名残はあるが、現在はからっぽという状況。農家がお金がほしいときに milling station に持ち込んで売るというシステム（一度に大量を脱穀するのではなく）

Processing : 米の場合、ヌードル、菓子、各種食品など。小規模で販売量も少ない。正確な量は把握できない。

Wrapping: 米についてはないが、最近はプラスチックが出てきた。他の食品も伝統的な方法に従ってやっている。魚の切り身、肉の切り身などをパッケージするようなもの。

(日本人プロジェクト専門家への聞き取りによる補足情報)

(44) Quality criteria

Q-44: Please list up the available quality criteria.

ANSWER: (from DOA) No detail info. Ministry of Health has more information such as Food Law, Sanitary Law and so on.

(45) Safety inspection system

Q-45: Please describe how the Government checks safety of food?

ANSWER: (from DOA) MOH is mostly responsible for this. They have lab and equipment supported by FAO and also food safety project that DOA is partly involved for screening only, not analysis. PROFILE project also collect some sample for analysis, but not in detail. If they want to know in depth, the sample has to be sent to MOH. PPC can also checks something such as carbonate and organophosphate.

3.2 Agricultural Infrastructure and the Operation and Maintenance (1-2-1)

3.2.1 Land reclamation (1-2-1-1)

Q-46: What is the present implementation and progress of land improvement or land reclamation/development for agricultural use?

Refer to Q-19

3.2.2 Soil conservation (1-2-1-2)

(47) Damage condition of soil erosion and soil conservation measures

Q-47: Please describe the damage condition due to soil erosion and soil conservation measures.

(48) Soil pollution/deterioration

Q-48: Please describe the present condition of soil pollution/deterioration.

ANSWER: (from DOI): No specific data is available. Meteorology and Hydrology under Prime Minister's Office

(49) Damage of agricultural land due to flood

Q-49: If your country has flood damage on agricultural land, please describe it.

Flood Area and Loss in 2000

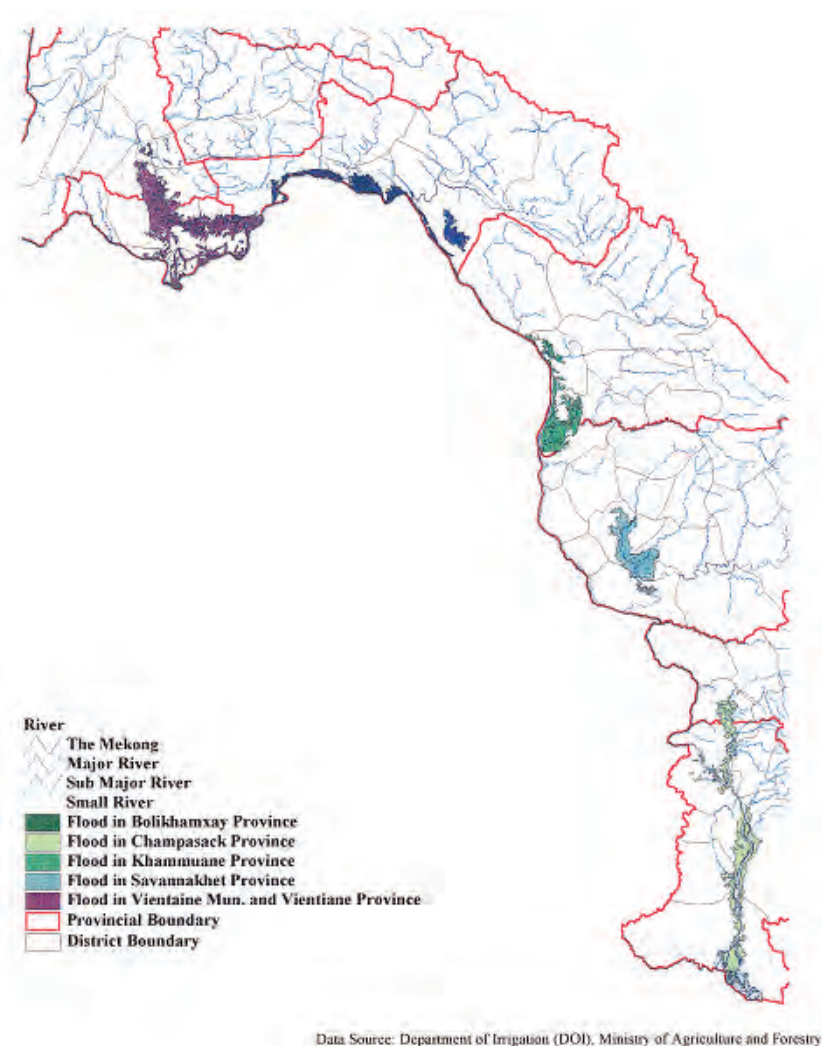
Province	Total Area (ha)	Paddy field affected by flood (ha)	
		Affected	Lost
Vientiane province	37,500	300	150
Vientiane municipality	48,500	1,000	300
Borikhamxai	25,282	3,546	1,500
Khammouan	48,112	22,080	20,840
Savannakhet	105,000	18,920	15,000
Champasak	84,530	22,730	17,270
Saravan	47,716	4,462	1,000
Attapu	12,500	1,200	500
Total	409,140	74,238	56,560

Remarks: Area includes both irrigated and rainfed fields.

Source: DOI, MAF

ANSWER: (from DOI)

“The low-lying lands along the Mekong River and its tributaries suffer flood and inundation damages more or less every wet season. The flood prone areas are shown in Figure 3.6. Though the floods provide positive impact to natural systems like feeding soil fertility, adverse effects are widely observed such as damage to agricultural production, housing and health, together with loss of life and infrastructure including irrigation facilities. Since 1996, the Mekong River Commission Secretariat (MRC) in collaboration with FAO has been collecting flood data for the Mekong River and its tributaries as a regional cooperation program in the Mekong River Basin. Countries along the Mekong River join this program, and the DOI is the counterpart in Lao PDR. The results of flood monitoring indicate that about 300 km of river courses bring about flooding along the Mekong tributaries within Lao PDR. These are in Vientiane Municipality and seven central - southern provinces.”



Source: DOI

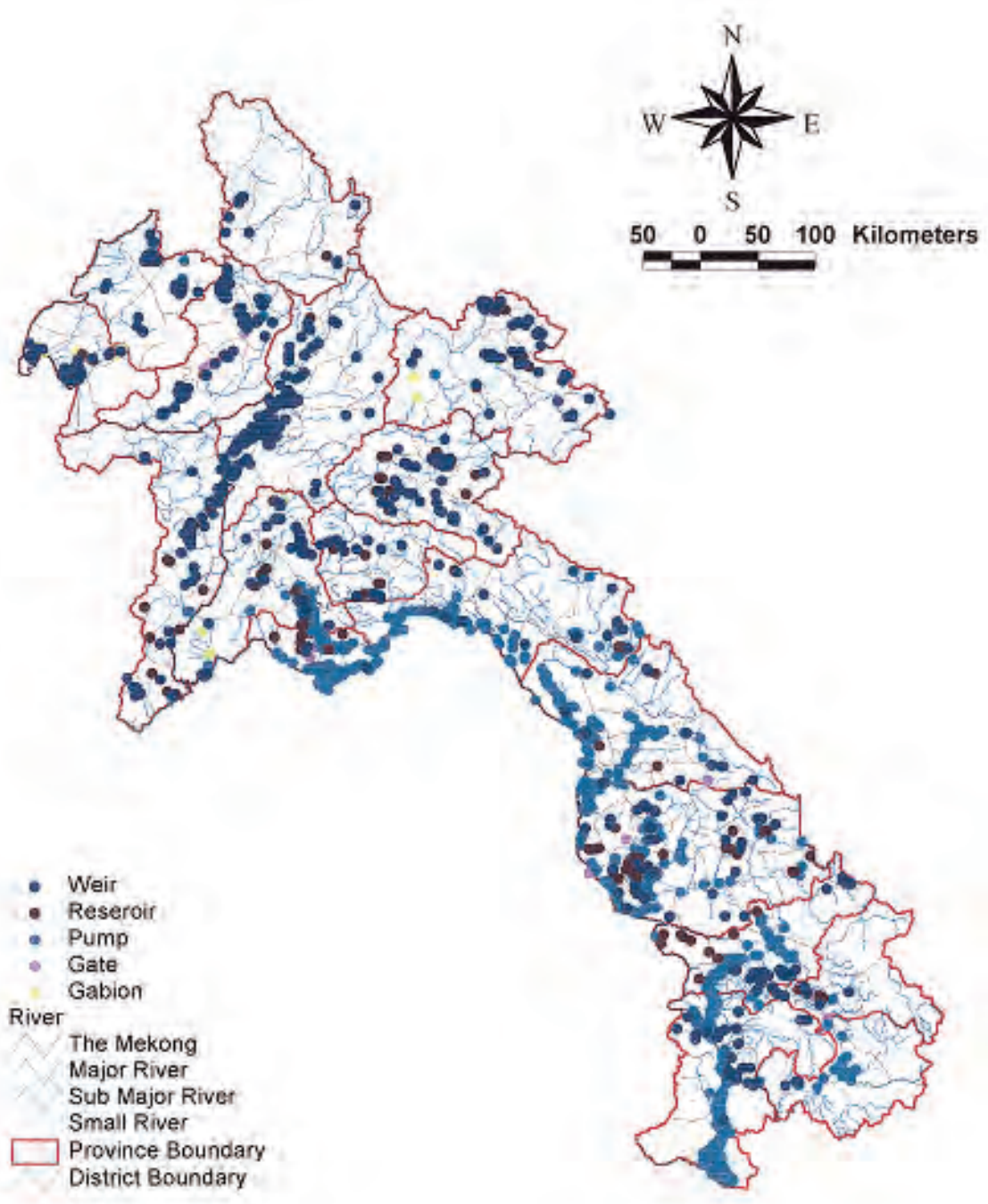
3.2.3 Provision of irrigation and drainage facilities (1-2-1-3)

(50) Present condition of irrigation and drainage facilities

Q-50: Please describe the present condition of irrigation and drainage facilities.

ANSWER: (from DOI)

“As of 2006-07 there are 21,489 irrigation schemes with a service area of 344,820 has in the wet season and 153,677 ha in the dry season. The majority of irrigation schemes are traditional weir type in the northern and central regions where the mountainous areas prevail, while pump irrigation is concentrated in the southern region.”



Source: DOI

(51) Deterioration of irrigation facilities and the Government's countermeasures

Q-51: Please describe deterioration of irrigation facilities and the Government's countermeasures.

ANSWER: (from DOI)

1. This year Government allocate budget for rehabilitation of irrigation facilities affected by flood about 81,7 billion kip within the country.

2. Reduction of Electricity cost by 30-50% for pumping irrigation schemes.
3. Replacement of earth canals to concrete lining canals.
4. Replacement of Diesel Driven pump sets to Electric pumps.

(52) Scale of irrigation facilities and the contents

Q-52: Please describe the scale of irrigation facilities and the contents.

ANSWER: (from DOI)Irrigation developments in Lao PDR are classified into 3 scales as follows:

- 1) Less than 100 ha as small scale
 - 2) 101 – 500 ha as medium scale
 - 3) More than 500 ha as large scale
- (National Irrigation Conference)

(53) The management system

Q-53: Please describe the irrigation management system.

3.2.4 Irrigation association (1-2-1-4)

ANSWER: (from DOI)

“Knowing that traditional irrigation systems have been efficiently managed by farmers’ communities, and also out of economic necessity that it had to reduce subsidies to the agricultural sector, the GOL established a policy to transfer the ownership and associated costs of irrigation to the farmer users. Encouraged by the SIRAP experience, the GOL issued a Prime Minister’s order No. 26/PM on the full transfer of irrigation projects to community organizations dated December 18, 1998. The purposes of the decree are to: promote and support the role and responsibility of WUAs in the management of irrigation systems; assist in the reduction of the responsibilities of GOL agencies in the routine management of irrigation systems; ensure the smooth transition of the full transfer of ownership of all irrigation infrastructure to WUAs; and improve the efficiency of operations, management and water distribution of all irrigation systems.

A most important issue of IMT is cost recovery. After IMT is achieved, the WUA is responsible for O&M of the irrigation system and the collection of water fees from farmers or from other organizations. Part of the collected water fees collected has to be transferred to the Village Development Fund (VDF) as the investment cost recovered by GOL, and the remainder is kept by the WUA as an Irrigation Service Fee (ISF) to be used for operation and maintenance of the system”.

(54) Provision of laws and the contents

Q-54-1: Does the Government provide any law or regulation to support formation of irrigation association?

ANSWER: (from DOI)

“Yes, the policy/strategies of irrigation development are for:

- 1) Sustainability and self-sufficiency of agricultural production in the irrigated area;
- 2) Community managed irrigation system;
- 3) Irrigation management transfer (IMT);
- 4) Irrigation facilities must be transfer to farmer in term of O&M and Management (farmers must be trained concerning on irrigated agriculture);

Q-54-2: If your answer is “Yes,” please describe outline of the law such as purpose, objectives, definition of the association, support activities, etc.

ANSWER: (from DOI)

- 1) Prime Minister Order No. 26/PM, dated December 18, 1998, regarding irrigation management transfer from government to the farmers’ community.
- 2) Announcement by the Central Party Office No. 616.CPO, dated December 17, 1999 informed the result of the Politburo Members decision on irrigation management transfer development concept and modality.
- 3) Ministerial Regulation on full irrigation management transfer to the water user association No.1149/MAF, dated 27 June 2000.
- 4) Announcement of the Ministry of Finance No.94/MF, dated 12 January 2000 regarding the tax of IMT.
- 5) Ministerial Regulation on full irrigation management transfer to the water user association No. 1149/MAF, 2000, date 27 June 2000;

(55) Condition of existing irrigation association and the activity contents

Q-55 If there are irrigation association that were already established, please list up the associations and summary of their contents.

ANSWER: (from DOI)In order to implement instruction of Prime Minister No.26 dated December 18, 1998, regarding irrigation management transfer from government to the farmers’ community. So all irrigation projects including existing once, projects being constructed or to be constructed in future by state, grant/loan from international agency have to be transfer to become common property of communities. The process of transferring irrigation projects to become common property of communities must be made step by step. At the present there are 1,012 irrigation schemes already transferred to Water User Association/Group (WUA/WUG).

3.3 Animal Husbandry

(56) Outline of animal husbandry

Q-56: Please show outline of animal husbandry including production data.

		2002	2003	2004	2005	2006
水牛	Northern Region	294,000	290,000	305,800	297,200	275,100
	Central Region	543,000	553,000	543,700	526,900	545,400
	Southern Region	252,000	268,000	275,000	271,700	287,500
	Laos 全国	1,089,000	1,111,000	1,124,500	1,095,800	1,108,000
牛	Northern Region	249,000	257,000	247,150	250,300	264,400
	Central Region	732,000	742,000	761,200	766,300	794,800
	Southern Region	239,000	244,000	272,850	255,600	261,400
	Laos 全国	1,221,000	1,244,000	1,281,200	1,272,200	1,320,600
豚	Northern Region	622,000	695,000	666,100	735,500	815,400
	Central Region	718,000	632,000	698,600	687,700	629,700
	Southern Region	269,000	327,000	362,600	402,400	587,400
	Laos 全国	1,608,000	1,655,000	1,727,300	1,825,600	2,032,500
ヤギと羊	Northern Region	56,700	63,300	79,000	85,300	85,150
	Central Region	59,100	58,100	68,400	83,000	95,850
	Southern Region	11,700	15,100	23,200	21,700	29,000
	Laos 全国	127,500	136,500	170,600	190,000	210,000
家禽	Northern Region	6,009,000	6,256,000	7,196,100	7,171,800	6,944,200
	Central Region	9,704,000	9,083,000	8,180,200	7,051,500	7,003,200
	Southern Region	2,608,000	4,135,000	4,214,300	5,577,800	6,855,100
	Laos 全国	18,321,000	19,474,000	19,590,600	19,801,100	20,802,500

Note: The data of 2002 and 2003 are rounded to the nearest thousand.

Source: Agricultural Statistics, 1976-2005 and 2006 Ministry of Agriculture and Forestry

3.3.1 Stable supply of livestock materials (1-2-1-5, 1-2-5-5)

(57) Present conditions of feedstuff supply

Q-57: Please describe the present conditions of animal breeding, including the following information.

ANSWER: (from DLF) There are feed factories where mix them 100t/day in Bolikhamxay, Bokeo, Houa Phan, Oudomxay etc.

<参考情報> 中小家畜については、放し飼いによる粗放的な飼養がある一方で、柵で囲って輸入配合飼料を使用する集約的な飼養も見られる。他方、大家畜については、牛では近代的飼養形態がごくわずかに存在するものの、牛・水牛とも、自然草地に頼った放し飼いという粗放的な飼養形態が多い。したがって、飼料の不足（特に乾季）や、中小家畜も含めて、疾病の多発（鳥インフルエンザ、口蹄疫病、豚コレラ他）、など、生産性は低い。さらに制度的な面を見てみると、畜水産局下、民間を含めラオスには家畜繁殖改良ステーション、家畜繁殖研究センター、家畜繁殖農場、また国境付近に疾病検査ステーションなどがあるが、家畜管理技術はいまだ未熟であり、さらに獣医スタッフをおいているものの数、質ともに不足しているのが現状である。（「長岡明[2006]「ラオス農林業の現状と課題」社団法人国際農林業協力・交流協会編『国際林業協力』 Vol. 29. No.2 pp.35-pp.43」

(58) Provision of services

Q-58-1: Does the Government provide the services on animal health and breeding such as vaccination and artificial insemination?

Q-58-2: If your answer is “Yes,” please describe outline of each service

ANSWER: (from DLF) On vaccination, the government has the center for produce the vaccination and it has 80 network in 17 provinces. VVW (village veterinary worker) is

buying the vaccination from the center because of shortage of the staff.

(59) Procurement condition of facilities on animal husbandry

Q-59: What materials do breeding farmers purchase for the barn, stock-farm ranch facilities and grassland establishment?

ANSWER: (from DLF) No special materials are used. All are natural. Refer to the report for details(it was written in Lao Language and there are no time to translate, therefore, this documents are handed to JICA Laos Office.)

3.3.2 Provision of infrastructure (1-2-1-5)

Q-60: Please show the latest data of total grassland area and the area of one livestock farm household.

ANSWER (from DLF) specific data is not available but, now government regards Xien quan province as most important for raising large animal. (location is appropriate for the livestock.)

Q-61-1: Please describe the condition of providing production facilities such as barn and silo.

Q-61-2: How many percent of the farmers provide these facilities?

Q-61-3: What the contents of these facilities?

ANSWER (from DLF) Presently, because it is very difficult to grow the grass so, there is no facility such as barn and silo, but we are now considering the grass to keep in dry season.

3.4 Enforcement of Agricultural Extension (1-2-3)

(62) Agricultural extension system

Q-62: Please describe the outline of your country's agricultural extension system.

ANSWER (from NAFES)During 1976 to 1986, technical service form government was based on the promotion cooperative unit establishment.MAF mobilize the staff to work with the cooperative to incarse yeisld trough this. Some area experienced significant effect, but this service collapsed.

In 1987, New economic mechanism based on the market economy orientation, extension service has becomed sector-basis, and DOA, DOI has each extension unit. Each department has strategy. MAF has been trying Restructure and in 1999 NAFRI and in 2002 July NAFES were established.

2001-2005 SDC support for the NAFES to find out way how to establish LEA (Lao Extension Approach) and now under Phase 3 upto2010 and try to capitalize, support for application them nationwide.

(63) Number of local extension units

Q-63: Please show the number of local extension units (extension center) for each country (province).

ANSWER (from NAFES) Total no. of staff no. is 3400 at district level and 20 % to 25% is for office staff. Reality, 50 % of staffs whom should go to the field can go there because of budget limitation.

Present government budget cannot cover the whole extension work.

(64) Number of extension worker

Q-64: Please show total number of extension workers who meet farmers and directly give advices.

(65) Main extension method

Q-65: Please show the data of the major extension method and number of implementation for recent five years, by applying the following table.

(66) Training extension workers

Q-66: What is the training method of extension workers?

ANSWER (from NAFES) Through OJT, Training, guideline etc. extension workers are learning facilitation skill, communication with community, group dynamism etc. which cannot learn from school. No specific date is available.

(67) NGO's extension service

Q-67: If there are NGOs who are doing extension activities, please list up the names with information of number of staff, foreign or domestic and main activities applying the following form.

ANSWER (from NAFES) There are some activities, but no specific data is available.

< 参考情報 > <http://www.directoryofngos.org/index.cfm>(NGO ディレクトリー)

3.5 Improvement of Farm Management (1-2-4)

(68) Typical management style of smallholders and large farms

Q-68: Please describe average management style of smallholders and large farms.

ANSWER: (from DOA) No specific information is available.

< 補足情報 >

1998/99 農業センサスによれば農家戸数は66 万8 千戸で全戸数の8割以上、一戸当たり平均農地面積は1.62ha、自家消費を超えた余剰のコメは地元市場に販売し、3分の1程度の農家は野菜、2~3割程度の農家は果樹を栽培している。家畜については、3~7割程度の農家が、平均して、牛・水牛・豚をそれぞれ3~5頭程度、家禽を20羽程度飼養している。

ラオスの農業はいまだ小規模で個人経営が主である。（「長岡明[2006]「ラオス農林業の現状と課題」社団法人国際農林業協力・交流協会編『国際林業協力』 Vol. 29. No.2 pp.35-pp.43」）

(69) Government subsidy

Q-69: Please describe provision and contents of the Government subsidy.

ANSWER: (from DOP) In the past the Government didnot provide any direct subsidy to farmers except the recent outbreak of Avian Influenza in the country, the government pays 60% of the total amount of the cost to farmers. However, the indirect subsidies are provided such as very low price of irrigation fee, low interest rate credits and 50% of electric cost for irrigation pumping if there is natural disaster occur (flood, or drought).

(70) Minimum price guarantee

{ Q-70-1: Does the Government provide systems to control prices of agricultural products?
Q-70-2: If your answer is “Yes,” please describe contents of the system.

ANSWER: (from DOP) No.

< 補足情報 > 農業政策アドバイザー報告書に記載あり。

(71) Credit system and condition

{ Q-71-1: How many credit cooperatives/institutions established?
Q-71-2: How many smallholders receive credit?
Q-71-3: How is the level of credit repayment? (In other words, how many percent of the total credits is repaid?)
Q-71-4: Please describe the present condition of credit system for farmers.

ANSWER: (from DOP) Individual farmers cannot have access to commercial banks. Only farmer association group are able to get the credit from only two banks namely Agriculture Promotion Bank and Policy Bank. Instead, villagers establish the Village Development Fund. In Lao PDR, there are more that 10 000 Village Development Fund. Refer to “Rural & Micro Finance Statistic in LAO PDR”, NERI, CPI, December 2007 for the details

(72) Farmers' organization

{ Q-72-1: Does the Government provide any law or regulation to support formulation of farmers' organization?
Q-72-2: If your answer is “Yes,” please list up these laws/regulations and the outlines.

ANSWER: (from DOP) To manage the farmer's organization, farmers formulate their own regulation. The district government officers only support the formulation process and

approved the content of the regulation.

Q-72-3: Are there farmers' organizations (ex. management cooperative, irrigation association, shipment association) in your country?

Q-72-4: If your answer is "Yes," please list up the kinds of organizations (such as management cooperative, irrigation association and shipment association), and describe how these organizations activate.

ANSWER: (from DOP) Concerning livestock and fisheries, there are fish raising association, pig raising association, community fishery group etc. Rule & regulation is prepared by the farmers. Government supports all the process. There is also Water User's Group/Association for Irrigation management.

3.6 Improvement of Environmental Consideration (1-4)

3.6.1 Treatment and recycle of agricultural wastes (1-4-1)

(73) Provision of environmental criteria

Q-73: What criteria are provided for agriculture? Please list up the criteria and briefly describe the contents.

(74) Treatment and recycle of wastes come out from farm households

Q-74: How does the Government recycle agricultural wastes such as stool and waste vinyl or plastic?

3.6.2 Decreasing environmental influence from chemical fertilizers and chemicals (1-4-2)

Q-75-1: Does the Government provide measures of decreasing environmental influence from chemical fertilizers and chemicals?

Q-75-2: If your answer is "Yes," please describe how actively these measures are carried out.

3.6.3 Appear and maintenance of multifunction (1-4-3)

Q-76-1: Does the Government or farmers consider and make special measures to keep multifunction of agriculture such as maintaining landscape, purifying water, replenishing groundwater and others?

Q-76-2: If your answer is "Yes," what are the special measures?

ANSWER: (from DOA) No specific information is available.

3.6.4 Education of environmental protection (1-4-4)

Q-77-1: Does the Government provide opportunities of giving farmers information and knowledge on environmental protection?

Q-77-2: If your answer is "Yes," please describe the contents for the opportunities.

ANSWER: (from DLF) Identify and analyze the ecosystem according the development area. Northern area: upland rice, government is looking for the method to change cultivation system to promote how to raise the cattle. Crop cultivation also. Upland rice to

change into Grass for the animal. For fishery, farmers have their own regulation for fish. In northern area, water temperature is too cold, so government suggest the change the location to near their place for easy management.

4. Research and Education

4.1 Enforcement of research, education and technical development (1-2-2)

4.1.1 Enforcement of research institutes (1-2-2-1)

Q-78: Please show the budget of agricultural research institutes for recent five years.

Q-79: Please describe organization structure of agricultural research institutes.

Q-80: Please list up all the agricultural research institutes, number of branches under each institute and number of employees of each institute.

ANSWER: (from NAFRI) Refer to our institute's HP

4.1.2 Improvement of production technology (1-2-2-2)

(81) Breeding

Q-81-1: Please list up names of institutes that work for breeding.

ANSWER: (from NAFRI) National Rice Project(LAO-IRRI project)→Swiss and Laos

Q-81-2: Please list up new varieties that are made for recent five years.

ANSWER: (from NAFRI)No. specific data is available

(82) Improvement of cultivation technology

Q-82-1: Please list up names of institutes that work to improve technologies on seeding, raising of seedling, planting density, pruning, fruit thinning, management practices, protecting disease and insect damage, weed control and cropping pattern.

ANSWER: (from NAFRI)

-RCRC: rice, cotton, soybean, IPM(technical instruction available at the center)

-FRC: tree seeds and seedlings (technical instruction available at the center)

-HRC: fruit tree and vegetable seeds and seedlings, IPM(technical instruction available at the center)

-NAFReC: Upland farming system/technologies

-SAFReC: coffee seeds and seedlings.

→ These are all NAFRI's centers.

Q-82-2: Please list up new technologies developed for recent five years.

ANSWER: (from NAFRI) Now under the progress for compiling

(83) Agricultural machinery and equipment

Q-83-1: Please list up names of institutes that work to improve agricultural machinery and

equipment.

Q-83-2: Please list up new machines or equipment developed for recent five years.

ANSWER: (from DOA) No specific data is available

(84) Irrigation and drainage technology

Q-84-1: Please list up names of institutes that work for irrigation and drainage technology.

ANSWER: (from DOI)

- Study, Survey and Design of Irrigation Center
- Tha Ngon Irrigation College.
- Faculty of Water Resources Engineering (NUOL)

Q-84-2: Please list up new technologies developed on irrigation and drainage for recent five years.

ANSWER: (from DOI)

- Replacement of earth canals to concrete lining canals.
- Utilization of Diesel Driven pumps sets and Electric pumps.
- Spray Irrigation System

(85) Soil conservation

Q-85-1: Please list up names of institutes that work to improve soil conservation technology.

From NAFRI

Agriculture Land Management Research Center/NAFRI

Q-85-2: Please list up new technologies developed on soil conservation for recent five years.

ANSWER: (from NAFRI)

- Semi tillage farming system
- Intercropping farming system, rotational farming system
- Agro-forestry with hedgerow.

4.1.3 Plant genetic resources (1-2-2-3)

Q-86-1: Please describe way of investigation, collection, storage, evaluation, data management and delivery of plant genetic resources.

ANSWER: (from NAFRI)

There is Genetic bank for rice. For NTFPs is under progress. Market development should be fastened.

Q-86-2: What organizations are operating these activities for plant genetic resources?

ANSWER: (from NAFRI) Rice and cash crop research center (RCRC) under NAFRI

Q-86-3: How many plant genetic resources do the Government's institutes collect?

ANSWER: (from NAFRI) no specific data is available

4.1.4. Improvement of post harvest technology (1-2-2-4)

Q-87-1: Please list up names of organizations who work for threshing, drying, milling, maintaining quality and freshness of food, and storing, processing, selecting and wrapping agricultural products.

Q-87-2: Please list up new technologies developed for post harvest during recent five years.

(Answer from Mr. Katayama)

ANSWER: (from DOA) Refer to Clean Agriculture Development Center at Vankham (in Vientiane Municipality)

<補足情報> State food staff enterprise (国営食糧公社) が肉、米の流通販売を実施している。(日本人専門家への聞き取り)

4.1.5 Improvement of technology for animal husbandry (1-2-2-5)

Q-88: Please list up organizations that work for development and provision for animal health technology such as vaccination.

ANSWER: (from DLF) NAFRI

Q-89: Please list up names of new vaccine developed for recent five years.

Q-90-1: Please list up institutions that work to improve technologies for breeding, artificial insemination, feeding and management, forage production, improvement of breeding.

Q-90-2: Please list up new technologies developed for animal husbandry during recent five years.

ANSWER: (from DLF) No specific data is available.

4.2 Higher Education

4.2.1 Base of higher education on agriculture (1-5)

Q-91: Please describe outline of education system.

ANSWER: (from Department of Organization and Personnel) See attachment**

Primary 6-11

Junior high 11-14

Senior high 14-17

College or university 17-22 or 24 year old

Q-92: Please show budget amounts on the higher education (universities and colleges) of agriculture and the share in the total education budget for recent five years applying the

following farm.

ANSWER: (from Department of Organization and Personnel)

Year	2003	2004	2005	2006	2007
Budget	4,250,673,596	3,947,440,060	2,333,100,000	3,081,000,000	3,613,300,000
Share (%)	N.A.	N.A.	N.A.	N.A.	N.A.

Q-93: What is the Ministry that is in charge of the higher education (university or college) on agriculture?

ANSWER: (from Department of Organization and Personnel) Ministry of Agriculture and Forestry (Colleges) and Ministry of Education (University)

Q-94: Please list up names of agricultural higher educational institutions (universities and colleges) and number of students of each institution. The number of students is shown classifying Bachelor, Master and PhD course.

ANSWER: (from Department of Organization and Personnel) See attachment**

4.2.2 Improvement of educational activities (1-5-1)

Q-95-1: What educational system is applied in your country (ex. unit system)?

ANSWER: (from Department of Organization and Personnel) All the required lectures are fixed by each college. Two times exams are given.

Q-95-2: How many semesters does your country's University (college) have per year?

ANSWER: (from Department of Organization and Personnel) Two (September to January and March to June)

Q-96: How the Government approve establishment of a higher educational institute? (In the answer, please include the qualification requirements.)

ANSWER: (from Department of Organization and Personnel))We do not know, it is role of Ministry of Education

4.2.3 Enforcement of research function (1-5-2)

- { Q-97: Please list up the name of academic societies on irrigation provided in your country.
Q-98: Please list up names of transactions that are periodically published on agriculture.
Q-99: How the number of publications is considered for promotion of a researcher?

ANSWER: (from Department of Organization and Personnel) No specific information is available

4.2.4 Improvement of management (1-5-3)

Q-100: How does the Government nominate and approve Dean of a public university

(college)?

Directors of Agriculture and Forestry College are appointed by Minister of MAF

ANSWER: (from Department of Organization and Personnel) Directors of Agriculture and Forestry College are appointed by Minister of MAF

Q-101-1: Does a public university (college) have other revenue than the national budget such as student fee, and consultation fee?

ANSWER: (from Department of Organization and Personnel)No.

Q-101-2: What percent of the total revenue is shared with the other revenue than the national budget?

ANSWER: (from Department of Organization and Personnel)
Budget for 5 colleges (aggregate) is shown in the below. As for percentage to total revenue, no specific data is available

単位: ラオス Kip

年	2003	2004	2005	2006	2007
金額	4,254,673,596	3,947,440,060	2,333,100,000	3,081,000,000	3,613,300,000

Reference) 人事局提供資料

4.2.5 Enforcement of collaboration with the other organizations (1-5-4)

Q-102: Which direction does public universities (colleges) apply for research and education, practice oriented or basic knowledge oriented?

ANSWER: (from Department of Organization and Personnel) Colleges are doing research related to the subjects/units only. NAFRI shall do main research activity, sometimes collaborate with University.

Q-103-1: Are there some universities (colleges) that conduct joint activities with universities (colleges) in Europe, U.S. or Japan?

Q-103-2: If your answer is “Yes,” what joint activities do they conduct?

ANSWER: (from NAFRI) Research, training etc. mainly as internship

Q-104-1: Are there some collaboration or connection between public university (college) and local agricultural high school?

Q-104-2: If your answer is “Yes,” please describe how they are collaborated.

Q-105-1: How many percent of the university (college) graduates have obtained jobs?

ANSWER: (from Department of Organization and Personnel) Yes. Collage graduate will require 3 years (normally 5years) for graduation of University. Student who proceed to University is less than 10%.

Q-105-2: Do public universities (colleges) have some measures to support graduates for obtaining jobs?

Q-105-3: If your answer is “Yes,” please describe the measures.

ANSWER: (from Department of Organization and Personnel) 20% of the graduate of college can get job, most of them shall back to home country to continue to farming.

4.2.6 Applying the higher educational organization as an extension unit

Q-106-1: Do public universities (colleges) have extension units to support farmers?

Q-106-2: If your answer is “Yes,” please explain the activities of extension units.

ANSWER: (from Department of Organization and Personnel) No.

5. ENFORCEMENT OF EXPORTING AGRICULTURAL PRODUCTS (1-3)

5.1 Enforcement of Exporting Policy (1-3-1)

(107) Amounts of agricultural export and import

Q-107: Please show the data of export and import amounts in agricultural sector applying the following table.

ANSWER: (from DOP) No specific information is available

(108) Outline of policy to increase agricultural export

Q-108: Please describe the policy outline of increasing the export amounts of agricultural products.

ANSWER: (from DOP) No specific information is available. Refer to the National Export Strategy, Ministry of Commerce and Industry

5.2 Institutional System of Increasing Export (1-3-2)

Q-109: What laws and regulations are provided to increase export amounts in agricultural sector?

Q-110-1: Does the Government have diversification strategy of exporting products and countries to export?

Q-110-2: If your answer is “Yes,” please describe the policy.

ANSWER: (from DOP) No specific information is available. Refer to the National Export Strategy, Ministry of Commerce and Industry

Q-111-1: Does the Government provide a special organization to promote exporting agricultural products?

Q-111-2: If your answer is “Yes,” please describe the name, purpose and function and activities of the special organization.

ANSWER: (from DOP) The Government established export promoting organization called “International Trade Center,”

Q-112-1: Does the Government provide special funds to enforce exporting agricultural products?

Q-112-2: If your answer is “Yes,” please describe the name, amounts, outline of the operation and others.

ANSWER: (from DOP) No

5.3 Enforcement of competitive exporting (1-3-3)

Q-113: We think the Government provides permission criteria or standards to allow exporting agricultural products. Please list up the name of these criteria or standards.

ANSWER: (from DOP) Refer to the National Export Strategy, Ministry of Commerce and Industry

Q-114: How does the Government control the quality of exports on agricultural products?

ANSWER: (from DOP) DOA gives certificate for commercial crops and DLF under the Ministry of Agriculture and Forestry for livestock; without this certification nobody can trade.

5.4 Enforcement of international marketing capability (1-3-4)

Q-115-1: Does the Government establish enforcement policy of public organization for international marketing?

Q-115-2: If your answer is “Yes,” please explain the policy contents.

ANSWER: (from DOP) No specific information is available. Refer to the National Export Strategy, Ministry of Commerce and Industry

Q-116-1: Does the Government provide support services of private foreign export to give information on international marketing conditions and trading regulation, processes and customs?

Q-116-2: If your answer is “Yes,” please describe the contents of support services.

ANSWER: (from DOP) No. specific information is available. Refer to the National Export Strategy, Ministry of Commerce and Industry

Q-117: How does the Government collect and analyze information on important trend of international market and international prices?

ANSWER: (from DOP) No. specific information is available. Refer to the National Export Strategy, Ministry of Commerce and Industry

Q-118-1: Does the Government provide some measures to enforce competitive exporting of small enterprises? (Example measures are developing new agricultural products, training staff of the enterprises on processing raw materials and others.)

Q-118-2: If your answer is “Yes,” please describe contents of the measures.

ANSWER: (from DOP) No. specific information is available. Refer to the National Export Strategy, Ministry of Commerce and Industry

6. STABLE FOOD SUPPLY (2.)

6.1 Policy on Demand and Supply of Food (2-1)

Q-119: Please describe data of demand and supply of your country’s main food crop (ex. Wheat) for recent five years applying the following form.

ANSWER: (from DOP) No. specific information is available. You can ask Ministry of Commerce and Industry.

{ Q-120-1: Does the Government provide food security policy such as setting up “Food Safety and Quality System” or “Food Security Code”?
Q-120-2: If your answer is “Yes,” please describe contents of the policy.

ANSWER: (from DOP) No. specific information is available. Refer to the National Export Strategy, Ministry of Commerce and Industry

6.2 Marketing of Food (2-2)

Q-121: Please describe outline of trading and marketing system.

ANSWER: (from DOP) Rice is collected at different places after the harvesting period. Wholesale merchants come to the place and purchase the rice on current market price. Then the wholesale merchants carry the rice, process them such as milling and sell the food to retail merchants. The retail merchants sell the food at local market.

{ Q-122-1: Does the Government provide policy measures to improve the trading and marketing processes?
Q-122-2: If your answer is “Yes,” please describe contents of the policy.

ANSWER: (from DOP) No. specific information is available
Refer to the National Export Strategy, Ministry of Commerce and Industry

Q-123: In order to stabilize the food supply, we think that the Government stores some amounts of food. Please explain the contents of this storing system?

ANSWER: (from DOP) As the member of EAERR, Lao PDR has an obligation to store 60 000 tones of rice each year. A part from that the government also receive food aid from Japanese Government RKI

6.3 Importing system (2-3)

Q-124: What is the import policy to avoid negative impact to domestic agricultural production?

ANSWER: (from DOP) No. specific information is available. Refer to the “National Export Strategy”, Ministry of Commerce and Industry

Q-125: What quarantine and epidemic prevention system does the Government provide for import products or food?

ANSWER: (from DOP) Plant Protection Quarantine, and Livestock Quarantine under the Ministry of Agriculture and Forestry have local offices and laboratories and these local units carry out all necessary epidemic measures.

6.4 Application of food aid (2-4)

Q-126-1: Please describe how to decide delivery amounts of food or goods supplied by aid and how to deliver them.

Q-126-2: Are the above processes applied for all the food and goods that are supplied in Food Aid program?

Q-126-3: If your answer is “No,” please describe how to decide delivery amounts of food or goods, and how to deliver them.

ANSWER: (from DOP) 1/3 of the food aid is for emergency case, the government transports the rice to the effected areas

7. RURAL DEVELOPMENT (3)

Q-127: Please show the latest regional data of annual income of one farm house hold (or regional data of annual income per capita and the average number of persons per one household).

ANSWER: (from DOP) No. specific information is available

< 補足情報 > Per capita consumption by Region are shown below

Region	Urban	Rural
Vientiane Municipality	62,098	55,304
North	23,498	24,995
Central	30,111	31,197
Southern	30,842	28,378
Lao PDR	31,035	29,668

Reference) NGPES, p22

7.1 Promotion of Rural Development Policy (3-1)

Q-128: What is the present condition of decentralization?

Q-129: What are rural development measures to promote decentralization? (Example measures are laws, regulations and subsidies.)

ANSWER: (from DOP) The government is trying to promote the cluster development approach by establishment of the offices in each cluster. In the agriculture sector, there would be Technical Service Center to support the farmers to produce their products

7.2 Other Income Generation than Agricultural Income of Rural Households (3-2)

Q-130: What is other income of rural people than agricultural income?

Q-131: How many percent of the total income is shared by the other income than agricultural income?

ANSWER: (from DOP) Regional income data is not available. On the other income, they have other incomes from pension, sending money from outside, small scale industry, NTFP activity, seasonal labor work in towns.

7.3 Promotion of rural industry (3-3)

Q-132: Please show kinds, scale, number of factories and distribution of rural factories (for example or distribution, widely distributed over the country or distributed only surrounding districts of the capitals city).

ANSWER: (from DOP) No. specific information is available

7.4 Rural Infrastructure (3-4)

Q-133-1: Are rural infrastructures well provided? (Examples of infrastructures are road, public transportation, drinking water supply, power supply, telephone, postal system, health center, meeting place, sanitation.)

Q-133-2: If some infrastructures are not well provided, what are the reasons and what are measures to improve the present conditions.

ANSWER: (from DOP) In rural remote area the conditions of roads are bad, public transportations are more or less. There is water supply but problem is filter. Power supply is poor. Telephone is not connected. Postal system is poor. Each district has a health center. Each village has a meeting place. Sanitation is not so good.

7.5 Conservation of Rural Environment (3-5)

Q-134-1: Are there any environmental problem in rural area?

Q-134-2: If your answer is "Yes," please describe the problems.

ANSWER: (from DOP) 1. Shifting cultivation has been continuously practicing, 2. Many

Hydropower plants are under construction, 3. Mining sites are discovered

7.6 Promotion of Home Improvement (3-6)

Q-135-1: Are there any project or system to improve home conditions such as nutrition improvement, health insurance and others?

Q-135-2: If your answer is “Yes,” please explain what projects or systems are provided.

ANSWER: (from DOP) No specific information

< 補足情報 > see attachment7 for the project list by donors.

7.7 Promoting collaboration (3-7)

Q-136-1: Are there traditional mutual assistance system in rural area such as working together to manage forest or clean irrigation channels and others?

Q-136-2: If your answer is “Yes,” please describe the mutual assistance systems.

ANSWER: (from DOP) Rural people are helping each other on land preparation, transplanting, and harvesting

Q-137-1: Are there any gender issue in rural area?

Q-137-2: If your answer is “Yes,” please describe the issues.

ANSWER: (from DOP)

There is Mass organization called Women’s Union and In each Ministry, there is a focal point for gender program.

7.8 Raising Health Level of Rural People (3-8)

Q-138: What are the contents of health service provided by the Government for rural people?

ANSWER: (from DOP) There is health center in each district. The government will establish health center in each cluster

7.9 Raising Education Level of Rural People (3-9)

Q-139: What kinds of educational facilities are available in rural area (for example, only primary school, up to junior high school)?

ANSWER: (from DOP) Every cluster will have a primary and secondary school.

8.0 OTHER RELATED SECTORS TO AGRICULTURE

8.1 Fishery

Q-140: What is the share of fishery sector in the total economy?

ANSWER: (from DLF) No specific data is available.

< 補足情報 > with Total of Livestock and Fisheries is 34.9% of agriculture sector (from Statistical Yearbook 2006)

Q-141-1: How many persons are totally working for fishery?

ANSWER: (from DLF) According to the Agricultural Census 1998/1999, total no. of holdings engaging in aquaculture is 667,900(refer to the attachment for the details.)

Q-141-2: On average, how many ships does one fishery household have and what is scale of the ship?

ANSWER: (from DLF) No specific data is available.

8.2 Forestry (4-2)

Q-142: What is the share of forestry sector in the total economy?

Q-143: How many persons are working for forestry sector?

ANSWER: (from DOF) No specific data is available
(補足情報) Forestry sector is 6.8% of agriculture sector (from Statistical Yearbook 2006)

9. AID IMPLEMENTATION SYSTEM AND OTHER COUTRIES' ASSISTANCE

9.1 Requests for International Assistance

Q-144: What are the processes from making proposal to submitting official request? Please describe not only the processes but also specific name of the division who is in charge of managing international assistance and how to decide the request priority.

ANSWER: (from Department of Organization and Personnel) First, the requesting agency/department formulates the request paper then submit to the International Cooperation Division under Department of Planning, this department will put the priority base on the policy and strategy of the Ministry then they will submit the proposal to the Department of International Cooperation under Ministry of Planning and Investment, then this Department will consider to request and send to the donors for further consideration

9.2 Other Foreign Assistance than Japan on Agriculture

Q-145-1: Please show us amounts of foreign assistance of each country and agency for recent five years applying the following table form.

See attachment

Q-145-2: Please list up foreign assistance projects implemented during recent five years applying the following table form.

See attachment 7

Item	Sub-No.	Summary of specific issues, applicable scheme, past and current assistant programs/projects and determined priority		Other donors of recent five years		Priority				
		Japan's ODA Current	Column-5	Column-6 (source: JICA Laos Office) <u>underlined</u> one is "planned" as of issue date	Column-6-2 (from departments, donor interview, HP etc.)	GOL	GOJ	Donors	Total	
1. Agricultural Production	Column-1	Column-2	Column-5	Column-6 (source: JICA Laos Office) <u>underlined</u> one is "planned" as of issue date	Column-6-2 (from departments, donor interview, HP etc.)	GOL	GOJ	Donors	Total	
										1
	2	Coordinate donors and other concerned ministries for further efficient implementation	DE(7)				H	H	M	8
	3	Improve the quality of the land					M	M	M	6
	4	Investigate IMT's direction according to the socio-economic condition	DE(8)	WB(52), ADB(2), AFD(9) *small scale irrigation: (40), (53)			H	H	M	8
5	Promote Irrigation system rehabilitation with cost sharing by farmers					H	H	M	8	

Item	Sub-No.	Japan's ODA Current	Other donors of recent five years		Priority									
			Column-5	Column-6 (source: JICA Laos Office) <u>underlined</u> one is "planned" as of issue date	Column-6-2 (from departments, donor interview, HP etc.)	GOL	GOJ	Donors	Total					
Column-1	1.2.2 Research and technological development	Column-5	6	Further application and extension of NAFRI's research result in the field and establishment of extension system for commodity product	Australia(12)(13), SDC(83), Belgium(18), FAO(21)(26), Switzerland(46)(47), SIDA(115), (145)									
			7	Promote the farm technology improvement especially for commodity product								6		
1. Agricultural Production			8	Improve Post-harvest technology especially for commodity product										
			9	Improve the livestock and fishery technology including sanitary, forage	Australia (16), FAO(34), FAO(75), SDC(83)	FAO(145)						8		
1. Agricultural Production			10	Strengthen the quality control system application of fertilizer and chemical		FAO(140)						6.5		
			11	Fasten and establish the Cluster village office and Technical Service Center (TSC) and extension system for it									9	
1.2.3 Agricultural extension			12	Ensure the budget and staff for establishment of the Culster village office and TSC								7		
			13	Improvement of management and operation of cluster village office and TSC (ADDED)									9	
			14	Capacity development of staff of DAFO, Cluster office, TSC and farmers(added) by training etc.	TCP(1) TCP(2)	ADB(2), Australia(15)(60)(112), EC(20), Switzerland (45), UNDP(85)	ADB(126), IFAD(132), Switzerland(133)							7.5
			15	Diversify the extension material according to the area's development needs										
1. Agricultural Production	16	Improvement of LEA(Lao Extension Approach) and institutionalize it	TCP(1)	Switzerland (45)								7		
													9	

Item	Sub-No.	Japan's ODA Current	Other donors of recent five years		Priority			Total		
			Column-5	Column-6 (source: JICA Laos Office) <u>underlined</u> one is "planned" as of issue date	Column-6-2 (from departments, donor interview, HP etc.)	GOL	GOJ		Donors	
Column-1	Column-2									
	17	Improve agricultural production by proper application of fertilizer and pesticide and improved seeds at field level					H	H	M/L	7.5
1.2.4 Farm management	18	Improve farmers' access to appropriate rural credit system	TCP(1) TCP(2)	Germany (75), IFAD(76)	IFAD(130)(131)		H	H	M	8
	19	Promotion of establishment of production group	TCP(1), TCP(2)				H	H	M	8
1. Agricultural Production	20	Conduct crop diversification to ensure food security and increase income especially for market oriented commodity production by contract farming					H	H	M	8
	21	Analyze current situation of machinery use and provide basic elements to promote mechanization (ex electricity, credits, access to repair centers, etc), if necessary								5
1.2.5 Agricultural Production	22	Promote quality seed development and stable supply	TCP(6)	Switzerland (46)(47)-rice biodiversity FAO(22)	Vietnam(152)		L	L	H	8
	23	Promote proper utilization of pesticide, fertilizer, improve seed					H	H	M/L	7.5
1. Agricultural Production	24	Promote livestock and aquaculture production with proper management such as facility(fence, breeding center ets. etc.), forage production etc.		Australia(10), FAO(25)(28)(37)(38)(39)(43), EC(55), IFAD(76)	ADB(126), IFAD(129)(130), FAO(141)(142)(143)(144)(146)(147)(148)(150), ITSA(151)					
	25	Develop the adequate disease control system especially for AI		Switzerland (124)			M	M	M/L	5.5
							H	H	M	8

Item	Sub-No.	Japan's ODA Current	Other donors of recent five years		Priority			Total				
			Column-5	Column-6 (source: JICA Laos Office) <u>underlined</u> one is "planned" as of issue date	Column-6-2 (from departments, donor interview, HP etc.)	GOL	GOJ		Donors			
Column-1	1. Agricultural Production	Column-2	26	Strengthen export competitiveness by quality improvement			H	M	M	7		
			27	Improve basic infrastructure for export promotion			H	H	M	8		
			28	Promote marketing ability for export	Australia(14), FAO(21)(27) *Link farmer to market=(114) (121)(79)(53)(1)	IFAD(129)(132)						
			29	supporting industry promotion of food-processing industry			H	M	M	M	7	
1.4. Consideration of the environment	1.5. Agriculture-related higher education	Column-2	30	Establish rule & system for export (certification, inspection)			H	M	M	7		
			31	Promote proper use of chemical fertilizer etc.	FAO(22)		H	M	M	M	7	
			32	Conduct awareness programs of environmental issues	FAO(41), UNDP(98) (103)		H	H	M	M	8	
			33	Increase enrolment ratio of agriculture college graduates for Laos national university and ensure the job after graduation			M	M/L	M	M	4.5	
1. Agricultural Production	2.1. Food supply/ demand policy	Column-2	34	Promote coordination with other research institutes, extension officers etc.	AFD(8)		M	M/L	M	5.5		
			35	Establish proper food supply/ demand policy by understanding nutrition condition of the peoples with reliable statistic data			H	H	H	H	9	
			36	Establish price stabilization system of agricultural products			L	L	L	H	5	
			37	Improve storage facilities condition			M	L	L	L/M	4.5	
2. Food Supply	2.2. Food distribution function	Column-2	38	Develop access road to market			H	H	M	8		
			39	Establish proper marketing system			H	M	M	M	7	
			40	Decrease post harvest losses.			H	M	M	M	7	
			41	Improve inspection system at border			H	H	M	M	8	
2.3. Import	2.4. Use of food aid	Column-2	42	Make use of counterpart fund of KRI efficiently			M	H	M	7		

Item	Sub-No.	Japan's ODA Current	Other donors of recent five years		Priority						
			Column-5	Column-6 (source: JICA Laos Office) <u>underlined</u> one is "planned" as of issue date	Column-6-2 (from departments, donor interview, HP etc.)	GOL	GOJ	Donors	Total		
3. Rural Development	Column-1	Column-2									
	3.1. Implementing policies related to promotion of rural areas	43	Capacity development of PAFO/DAFO in line with GOL's decentralization policy								
	3.2 Off-farm incomes	44	Study and conduct improvement measures on the conditions of non-agricultural workers								6
		45	Promote small and medium scale agribusiness to generate off-farm rural employment		FAO(149)		M	M	M		6
	3.3 Agricultural processing industry	46	Promote food processing industry according to the each area's comparative advantage by promoting local and foreign investment		FAO(137)						
		47	MAF establish strategy for promotion of food processing and agribusiness								
		48	Promotion of HACCP for quality control								
		49	Promote contract farming for ensure the stable price								
		50	Equipment & facility development								
	3.4 Infrastructure	51	Improvement of drinking water supply								
		52	Improvement of rural road condition								
		53	Improvement of electrification								
				ADB(1), Belgium(18)(66), WB(52)(88), EC(72),	BTC(128) IFAD(130)(131)		H	H	H	M	M
						H	H	H	M	M	8
						H	H	H	M	M	8

Item	Sub-No.	Japan's ODA Current	Other donors of recent five years		Priority					
			Column-5	Column-6 (source: JICA Laos Office) <u>underlined</u> one is "planned" as of issue date	Column-6-2 (from departments, donor interview, HP etc.)	GOL	GOJ	Donors	Total	
Column-1	Column-2	Column-5								
	54 Stabilize shifting cultivation by <i>introducing alternative production system</i>	TCP(1)	ADB(3), Australia (15), WFP (53), EC(70)(71), UNODC(107)	IFAD(131), Vietnam(152) WFP(134)	H	H	M	M	8	
	55 Stabilize shifting cultivation by appropriate land allocation				H	M	M		7	
3.5. Protection of rural environment	56 Promote sustainable forest management with soil erosion control, afforestation, plantation forestry and conservation	TCP(3) GR(9)	Canada(19), FAO(36), EC(71), FAO(113), SIDA(116), Switzerland (117), WB(118), Australia(125)							
	57 Better understanding the impacts of rapid agrarian change on local livelihood and the environment (land conflict, land degradation etc.)									
	58 Promote FSC certification acquisition, establish REDD system in the field level.				H	H	M	M	8	
3.6. Livelihood improvement	59 Better coordination among concerned ministries for needs identification of village									
	60 Integrate the livelihood improvement component as rural development project etc especially for gender mainstreaming of the agriculture and forestry sector activity		ADB(4)(5), FAO(23)(30)(41)(42), WFP(53)(90), Australia (60)~(65), Belgium(66), Canada(67)(68), EC(69)(70)(71)(122), Germany (75), IFAD(76)(77)(78)	Ausaid(127), BTC(128), IFAD(129)(130)) WFP(135)	H	H	H	H	9	
	61 Promote production group establishment				H	H	M	M	8	
3.7. Rural community Activities	62 Promote/proper manage village development fund establishment				H	H	M	M	8	
	63 Increase the public health expenditure.				H	H	M	M	8	
3.8. Health standards among residents										
					H	H	M	M	8	

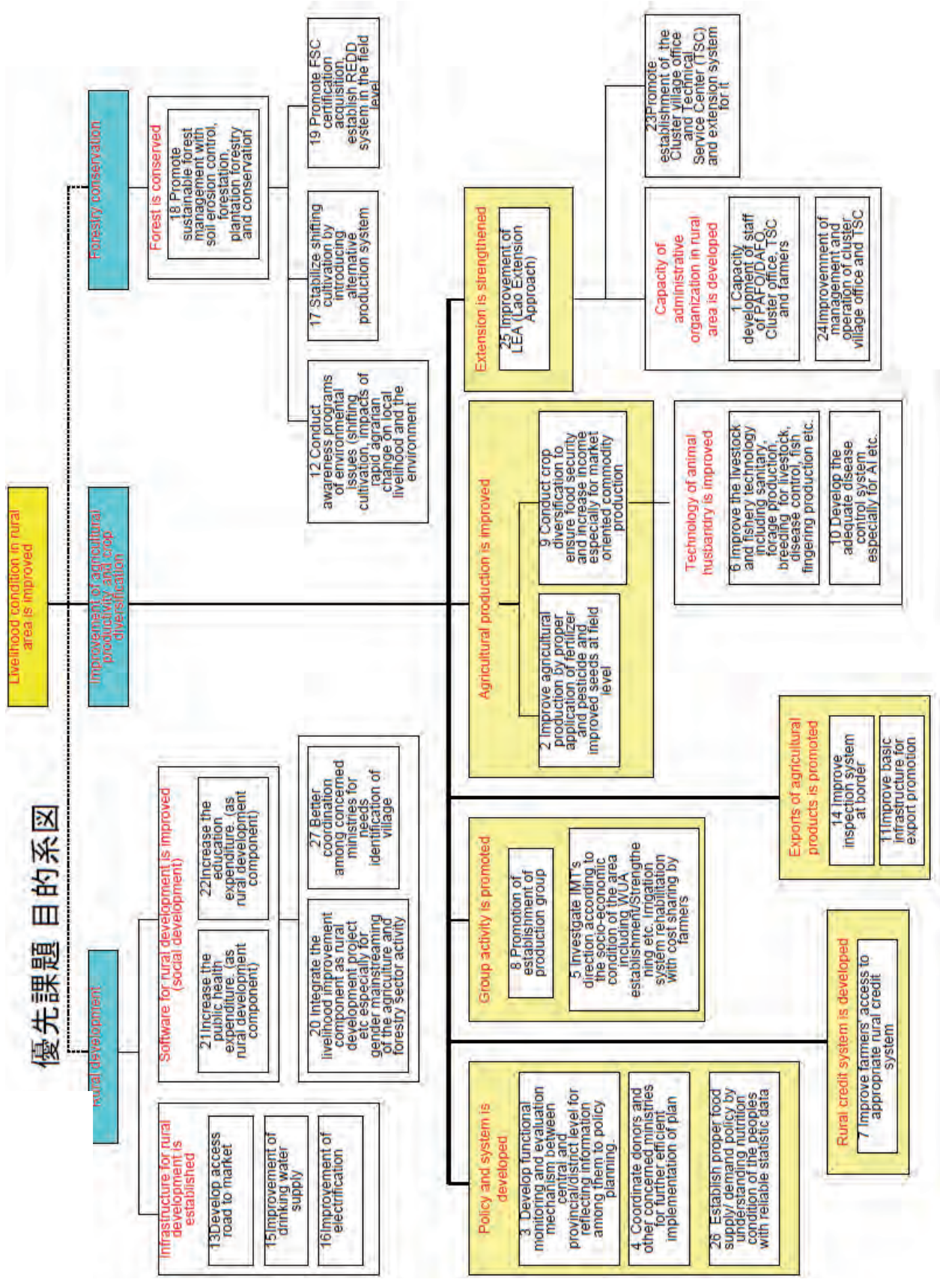
Item	Sub- No.	Japan's ODA Current	Other donors of recent five years		Priority				
			Column-5	Column-6 (source: JICA Laos Office) <u>underlined</u> one is "planned" as of issue date	Column-6-2 (from departments, donor interview, HP etc.)	GOL	GOJ	Donors	
Column-1	Column-2	Column-5	Column-6 (source: JICA Laos Office) <u>underlined</u> one is "planned" as of issue date	Column-6-2 (from departments, donor interview, HP etc.)	GOL	GOJ	Donors	Total	
3. Rural Development	64	3.9. Educational standards among residents	Increase the education expenditure.	(123), Luxembourg(79)(80), Switzerland(81)(8 5), WB(88)(89),		H	H	M	8

No.	Priority	Priority issues	Reason of priority
1	H	Capacity development of staff of PAFO/DAFO, Cluster office, TSC and famrrs(added) by training etc.	GOL put this issues as Measure No. 4 and GOJ follows this direction, but there are so many cooperation already, therefore, GOJ needs to demarcate area for this cooperation. GOJ shall contribute to this issue by working together in technical cooperation project.
2	H	Improve agricultural production by proper application of fertilizer and pesticide and improved seeds at field level	GOL put this issues as goal 1, 2 and Measure 8. JICA also have cooperation as RISEP for rice. Agriculture input is base for increase of production, therefore, it is high priority.
3	H	Develop functional monitoring and evaluation mechanism between central and provincial/district level for reflecting information among them to policy planning. "Accuracy, on time, by statistics" shall be important.	GOL put this issues as Measure 12, JICA is implementing cooperation as AGRISTAT and JICA policy advisor dispatch, as for donor cooperation, there are some corporation, so, GOJ has to collaborate with other donors.
4	H	Coordinate donors and other concerned ministries for further efficient implementation of plan	For rural development promotion, we have to coordinate with other donors and concerned ministries. AFD is main donor for coordination among donors so that JICA do not need to support overall management. However, in some specific issues such as Irrigation and Upland Development, JICA can take initiative based on our cooperation.
5	H	Investigate IMT's direction according to the socio-economic condition of the area including WUA establishment/Strengthening etc. Irrigation system rehabilitation with cost sharing by farmers	GOL put this issues as Measure 7, and JICA also supporting. Other donors such as ADB, AFD, WB are working also, so we can work collaborative. PIM should be included in IMT
6	H	Improve the livestock and fishery technology including sanitary, forage production, breeding for livestock, disease control, fish fingering production etc.	GOL put this issues as Goal 2 & measure 3. JICA also scheme as FORCOM, Aqip 2 and animal disease control for this issues. Donor cooperation are existing many, therefore, we can share the experience and techniques with other donors.
7	M	Improve farmers' access to appropriate rural credit system	GOL put this issues as Goal 1 & 2, GOL promote APB's development and policy bank also has been established. GOJ can support through VDF development. For this issue, we can collaborate with other donors after new JICA/JBIC establishment by utilization of FORCOM experience .

No.	Priority	Priority issues	Reason of priority
8	H	Promotion of establishment of production group	GOL put this issues as measure 6, and JICA also has gained experience through FORCOM, Aqip and irrigation advisor's activity for cooperation. Although many donors are supporting farmer's organization development, but not comprehensive one, therefore, donor can support strategy drafting .
9	H	Conduct crop diversification to ensure food security and increase income especially for market oriented commodity production	GOL put this issues as goal 1 & 2. JICA has been supporting this through TCP and have resources (crop diversification), donors also have supports, thefore we need to demarcate for each activity.
10	H	Develop the adequate disease control sytem especially for AI etc.	GOL put this issues as measure 9. and livestock has been becoming increased importance. Although many donors has been supporting, each donor has own area for cooperation, JICA also have regional cooperation (malaysia, thailand, cambodia, myanmar and Laos) . AI issues have been supported by other donors. However, JICA can focus on other disease which are popular in rural area.
11	M	Improve basic infrastructure for export promotion	GOL put this issue as Goal 2 and because Laos is landlocked country, it is important for export promotion for neighboring countries, GOJ also put importance. Many donors support this area, so we need to demarcate. Basic infrastructure such as road for export is lower priority than rural road condition(17) considering GoJ's emphasis on rural poverty reduction.
12	H	Conduct awarness programs of environmental issues (shifting cultivation, impacts of rapid agrarian change on local livelihood and the environment (land conflict, land degradation etc.)	GOL put this issue as Goal 3 & 4. GOJ also support through FORCOM.

No.	Priority	Priority issues	Reason of priority
13	H	Develop access road to market	GOL put this issues as Goal 2 and JICA also follows this direction. For this area, many cooperation are already existing, so need to coordinate.
14	H	Improve inspection system at border	GOL tries to improve capacity local government and equipment to control disease. GOL try to standardize, and Measure 9. Even though many donors support this matter, JICA can focus on capacity development and equipment provision of local quarantine stations.
15	M	Improvement of drinking water supply	GOL put importance on poverty reduction in rural area general, and GOJ's sector cooperation strategy also put emphasis on human security. As for donor cooperation, there are
16	M	Improvement of electrification	GOL put this issues as Measure 3 & 4 and JICA is supporting by FORCOM. There are so many cooperation already.
17	H	Stabilize shifting cultivation by introducing alternative production system	
18	H	Promote sustainable forest management with soil erosion control, afforestation, plantation forestry and conservation	GOL put this issues as Goal 3 & 4 and GOJ also have same cooperation direction. This issue will be our priority in the future.
19	H	Promote FSC certification acquisition, establish REDD system in the field level.	GOL put this issues as Goal 4 and JICA has cooperation as FSIP
20	M	Integrate the livelihood improvement component as rural development project etc especially for gender mainstreaming of the agriculture and forestry sector activity	Gender strategy established in 2005 and focal point staff also has been assigned in MAD and GOJ also follows this direction but there are other donors activities implemented, therefore, GOJ has to think about demarcation of cooperation.
21	M	Increase the public health expenditure. (as rural development component)	GOL put importance on poverty reduction in rural area general, and GOJ's sector cooperation strategy also put emphasis on human security. As for donor cooperation, there are some cooperation, so, GOJ has to collaborate with other donors. (JICA can not support for financing but can support other area)
22	M	Increase the education expenditure. (as rural development component)	-ditto-
23	M	Promote establishment of the Cluster village office and Technical Service Center (TSC) and extension system for it	GOL put this issue as Measure 4, JICA also shall follow this direction (FORCOM and Aqip shall take up this concept into project activity). LEAP III will support this concept, therefore, JICA shall coordinate with other donors.
24	H	Improvement of management and operation of cluster village office and TSC	GOL put this issue as Measure 4, JICA also support cluster approach which lead to poverty reduction and livelihood improvement.
25	H	Improvement of LEA (Lao Extension Approach) and institutionalize it	-ditto- CSP (community support program under FORCOM) shall be incorporated into LEA.

No.	Priority	Priority issues	Reason of priority
26	H	Establish proper food supply/ demand policy by understanding nutrition condition of the peoples with reliable statistic data	GOL put this issues as Goal 1, it is also important for poverty reduction which Japan put on emphasis. As for donors, there are not many cooperation for this field, so JICA can support for this area.
27	H	Better coordination among concerned ministries for needs identification of village	GOL put importance on poverty reduction in rural area general, and GOJ's sector cooperation strategy also put emphasis on human security, therefore, more coordination among concerned ministries shall be necessary, local government also shall need in point of establishment of cluster village. GOJ need to consider comprehensive program for poverty reduction in southern part of the Lao PDR in accordance with GoJ policy.



(Date of formulation: 25/06/2008)

Development issue	Name of JICA's Cooperation Program	Purpose of JICA's Cooperation Program (Output)	Objectives	Priority issues	Scheme
Column-1	Column-2	Column-3	Column-4	Column-5	Column-6
Alternative-1 :					
Livelihood improvement in rural area	Livelihood improvement program	Improvement of agricultural productivity and crop diversification	Agricultural production is improved	Conduct crop diversification to ensure food security and increase income especially for market oriented commodity production	TCP,DE
				Improve agricultural production by proper application of fertilizer and pesticide and improved seeds at field	
				Improve the livestock and fishery technology including sanitary, forage production, breeding for livestock, disease control, fish fingering production etc. Develop the adequate disease control system especially for AI etc.	
Livelihood improvement in rural area	Livelihood improvement program	Improvement of agricultural productivity and crop diversification	Extension is strengthened	Promote establishment of the Cluster village office and Technical Service Center (TSC) and extension system for it	TCP,DE
				Improvemnt of management and opeartion of cluster village office and TSC	
				Capacity development of staff of PAFO/DAFO, Cluster office, TSC and famrrs(added) by training etc.	
Livelihood improvement in rural area	Livelihood improvement program	Improvement of agricultural productivity and crop diversification	Group activity is promoted	Investgate IMT's direction according to the socio-economic condition of the area including WUA establishment/Strenghtining etc. Irrigation system rehabilitation with cost Promotion of establishment of	TCP,DE

Livelihood improvement in rural area	Livelihood improvement program	Improvement of agricultural productivity and crop diversification	Rural credit system is developed	Improve farmers' access to appropriate rural credit system	
			Exports of agricultural products is promoted	Improve basic infrastructure for export promotion	
		Policy and system is developed	Develop functional monitoring and evaluation mechanism between central and provincial/district level for reflecting information among them to policy planning. "Accuracy, on time, by statistics" shall be important.		
			Coordinate donors and other concerned ministries for further efficient implementation of plan		
			Establish proper food supply/ demand policy by understanding nutrition condition of the peoples with reliable		
			Develop access road to market		
			Improvement of drinking water supply		
			Improvement of electrification		
			Increase the public health expenditure. (as rural development component)		
			Increase the education expenditure. (as rural development component)		
			Infrastructure for rural development is established	Integrate the livelihood improvement component as rural development project etc especially for gender mainstreaming of the agriculture and forestry sector activity	
			Software for rural development is improved (social development)	Establish proper food supply/ demand policy by understanding nutrition condition of the peoples with reliable statistic data	
				Integrate the livelihood improvement component as rural development project etc especially for gender mainstreaming of the agriculture and forestry sector activity	

Livelihood improvement in rural area	Livelihood improvement program	Rural development	Software for rural development is improved (social development)	Increase the education expenditure. (as rural development component)	Establish proper food supply/ demand policy by understanding nutrition condition of the peoples with reliable statistic data
	Foetry preservation	Forest is preserved	Promote sustainable forest management with soil erosion control, afforestation, plantation forestry and conservation	Conduct awarness programs of environmental issues (shifting cultivation, impacts of rapid agrarian change on local livelihood and the environment (land conflict, land degradation etc.)	
				Stabilize shifting cultivation by introducing alternative production system	
				Promote FSC certification aquisition, establish REDD sytem in the field	

Note: DE= Dispatch of Expert, JV=Japan overseas cooperation volunteers, SV=Senior volunteer, TCP=Technical Cooperation Project, DS=Development Study, AT=Acceptance of trainees, GA= Grant Aid, GR=Grassroots

目標達成の為のシナリオ案 (Form-10: Program summary, desirable way of achieving and priority)

Development issue	Name of JICA's Cooperation Program	Purpose of JICA's Cooperation Program (Output)	Scenario and approach to achieve purpose (output)	Priority among purposes and the reason	Priority among programs and the reason
Column-1 Improvement of agricultural productivity and crop diversification	Column-2 Agricultural extension-based livelihood improvement program	Column-3 Agricultural production is improved	Column-4 In order to improve agricultural productivity, the on-going "RISEP(2006-2011)" would be effective for establishing a proper rice seed multiplication and distribution system, which would enable farmers to obtain qualified rice seeds easily, and thus continuously implemented. Further, through AQIP2, improvement of fishery technology would be continuously implemented focusing particularly on self-sufficiency farmers. As for the improvement of agricultural technology for crop diversification, it is expected that the RISEP would further be effective for promoting market based processed rice production for beer and rice cakes, etc. The AQIP2 would focus on promoting market based fish production as well as for self-consumption. In addition to such on-going projects, it would be considered to formulate a new technical assistance project to promote market oriented diversified crops. The planned project would be a development study very likely technical assistance program, which would verify some potential commercial crops through pilot programs particularly in the southern region of Lao PDR, where the farming system is changing to market based farming.	Column-5 H : Increase of agricultural productivity including crop diversification is a base of overall rural development. Further, to achieve the increase of productivity, proper agricultural production technology is definitely needed, where Japanese high technology would be effectively utilized. Under such, the priority is considered to be high.	Column-6 H : Since agricultural productivity and crop diversification is a base of rural development, the priority is high.
Extension is strengthened			Based on the outcome of CSP (Community Support Programme), which is an extension approach verified by FORCOM, LEA (Lao Extension Approach) would be improved. Further, through FORCOM2, CSP-based improved LEA would be stabilized and the extension of alternative production activities of shifting cultivation would be continuously implemented in the northern region of Lao PDR. In parallel, considering the cluster extension approach being promoted by the government, the provincial and district administrative extension services and "farmer to farmer" extension approach implemented by FORCOM and AQIP2 would be improved and expanded in the poor districts of the southern region of Lao PDR. The hardware support including TSC construction would be considered through a community development grant program in the southern three poor provinces. As for the software support, the dispatch of JOCVs (Rural development and extension) would be considered for promoting field level activities. The promotion of commercial crops farmer's production groups would be tackled through a development study very likely technical assistance program.	H : For promoting rural development, it is very important that the transferred agricultural production technology should be surely extended to farmers. Further, the government is now actively promoting strengthening of extension system through cluster approach. Under such, the priority is considered to be high.	

Improvement of agricultural productivity and crop diversification	Agricultural extension-based livelihood improvement program	Group activity is promoted	<p>The levels of farmer's group differ depending on their social and economic conditions in the areas. The promotion and strengthening of farmer's group in the poor region and their stabilization would be continuously implemented through the assistance to production oriented farmer's group in the region where their farming system is transitioning to commercialized farming, a development study based on pilot model activities would be considered expecting future expansion to some agribusinesses. The assistance for improvement of water management by diversified crop farmer's group would also be considered in the study. The possibility of cooperation with "one village-one product" project would be examined as well in such a technical assistance development study. As for the assistance to the government policy side, the agricultural policy adviser would provide advice on the study on establishment of farmer's group and farmer cooperative at Agriculture and Forestry Policy Research Center at NAFRI. The strengthening of WUA (Water User's Association) would be assisted by the irrigation policy advisor in terms of the irrigation policy of the country.</p>	<p>M : Formulation of farmer's group is important in preparing a base of extension system as well as promoting commercial crop production for marketing. The assistance in improvement of IMT system is also important, which would be continuously supported by JICA. However, some production group activities should be done based on private sector initiatives. Under such, the priority is considered to be a little bit lower.</p>	H : Since agricultural productivity and crop diversification is a base of rural development, the priority is high.
		Rural credit system is developed	<p>Rural finance would be accessible to two ways, one is to borrow money from outside facilities/organizations such as APB, NAYOBY Bank and other rural finance institutions, etc., and the other is from inside facilities, namely Village Development Fund (VDF), which is established by farmers themselves. In any cases, the capacity building of borrowers (farmer's group) is indispensable. For promoting VDF, the technical assistance for establishing and operating VDF, and capacity building of borrowers (farmer's group) would be done through FORCOM2 and AQIP2. As for transitioning farmers to commercialized agriculture in the southern region, the cooperation with existing rural finance facilities/organization would be examined through a technical co-operational development study.</p>	<p>M : Rural finance is important in terms of financing to rural development opportunities. However, JICA would focus on promoting VDF by community initiatives or assisting other donors efforts on rural finance. Thus, the priority is considered to be a little bit lower.</p>	

Improvement of agricultural productivity and crop diversification	Agricultural extension-based livelihood improvement program	Exports of agricultural products is promoted	<p>For promoting exports, strengthening of quarantine system and its human resource development are indispensable. As for plant quarantine system, a technical assistance would be continuously implemented through the existing program of "Capacity Building for Plant Quarantine Officer (Third Country Training/ In Country Training)". Since many donors' assistances are being implemented in this field, the agriculture policy advisor would assess the possibility of JICA assistance in this field. JICA would also assist in the field of animal quarantine through the existing "Regional Cooperation Project for Animal Disease Control among Cambodia, Lao PDR, Malaysia, Myamer, and Vietnam". The improvement of infrastructure for exporting agricultural products, the necessity of distribution bases would be examined through the development study on improvement of distribution system in Lao PDR conducted in 2008.</p>	<p>M : Promotion of exports of agricultural products is determined to be an issue in the future considering the present agriculture technology level and marketing capacity in Lao PDR, thus the priority is to be lower.</p>	H : Since agricultural productivity and crop diversification is a base of rural development, the priority is high.
Rural development	Rural development	Infrastructure for rural development is established	<p>Food security is one of the most important policy of GOL and JICA has assisted the government in the form of advices by the agriculture policy advisor through "Urgent Rice Storage Project in East Asia". Such national level political projects would be continuously assisted by the agriculture plicy advisor. Particularly, political advices related to "improvement of productivity" and "establishment of farmer's group" would be done by the advisor. The irrigation policy advisor would assist in improvement of IMT and contribute to the improvement of IMT framework. In order to establish reliable agricultural statistics, which are indispensable for preparing the national development plan, technical transfer of applicable methodology of collecting agricultural production data and their processing would be done through "Capacity Building Project for Strengthening of Agricultural Statistics System".</p>	<p>H : Agriculture policy and strengthening of institutional system are very important because they involve all the fields of production, extension and distribution. Further, GOL has a weakness in making policy and administrative institutions compared with those in surrounding countries. Under such, the priority is considered to be high.</p>	H : In terms of human security, the priority is high.
Rural development	Rural development	Infrastructure for rural development is established	<p>Necessity and possibility for the assistance to the basic infrastructure in rural development program such as rural road, water supply and electrification would be studied in the "Integrated Regional Development Program in Southern Provinces" in collaboration with other sectors (for examples, improvement of access road to market).</p>	<p>H : Since overall rural infrastructure is disadvanced in Lao PDR, the priority is considered to be high.</p>	H : In terms of human security, the priority is high.

Rural development	Rural development	Software for rural development is improved (social development)	In education sector, it is planned that the implementation of "Improvement of Primary Education by Community Initiative in Southern Three Provinces" and the formulation of a successor project of "Science and Mathematics Teacher Training Project". In health sector, the formulation of a successor project of "KIDS MILE" is being considered, which would be identified in the "Integrated Regional Development Program in Southern Provinces". Such social development project would be collaborated with proposed agriculture sector projects and progress of the cluster approach in the region.	H : Since overall social development in rural area is also disadvanced in Lao PDR, the priority is considered to be high.	H : In terms of human security, the priority is high.
Foetry Conservation	Foetry Conservation	Forest is conserved	On the policy level, JICA would continuously assist in implementing, promoting and monitoring Forestry Strategy 2020 through "FSIP (Forestry Strategy 2020 Implementation Promotion Project)". On the field level, forestry management and reduction of shifting cultivation would be assisted through FORCOM2 based on the outcomes and lessons of the existing FORCOM. Particularly, the possibility of inclusion of REDD component in FORCOM2 would be studied.	H : In terms of correspondence to environmental issues, promotion of forest conservation and its intentional use is in high priority.	H : In terms of environmental conservation, the priority is high.

