

**FOLLOW UP TO ARMENIA PILOT PSIA
DCP/PSIAFOLLOWUP002**

Final Report

London, 20 February 2004

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London, 20 February 2004

LIST OF ABBREVIATIONS

DfID	Department for International Development
ERI	Economic Research Institute
GoA	Government of Armenia
GTZ	German Technical Co-operation
PRSP	Poverty Reduction Strategy Paper
PSIA	Poverty and Social Impact Assessment
PURC	Public Utilities Regulatory Commission
UNDP	United Nations Development Programme
SCWR	State Committee of Water Resources
WB	World Bank

EXECUTIVE SUMMARY



**Tigran Khachatryan,
Deputy Minister of
Finance and Economy**

“PSIA is part of a new culture of public policy implementation. [In the reform process] we have to be sure to reach our objectives. Everyone wants to know that resources are used appropriately. PSIA gives us the tool for this. Also, if we don’t have PSIA-based accountability, we can’t learn from success or failure.”

In January 2004, DfID commissioned an assessment of the policy impact of the PSIA Pilot conducted in Armenia. The assessment was implemented in February 2004 with the aim of:

- Advising on the usefulness and policy-impact of the DfID PSIA pilot in Armenia;
- Advising on how to ensure that future PSIA studies worldwide feed into pro-poor policy making; and
- Recommending to GoA and partners how sustainable capacity can be built for future evidence-based policy making.

The priority of the PSIA Pilot was to show “what is possible using existing data”, rather than an exercise focused on influencing government policy. Consequently, it appears that limited resources were allocated for policy impact and the study was not broadly disseminated.

However, the PSIA Pilot demonstrated the value of PSIA to those who received the report, were briefed on its substance, and participated in the research process. Despite limited dissemination and follow-up, the study contributed to the PRSP, raised awareness of PSIA as a concept, and inspired confidence among selected donors for new studies. As such, many respondents expressed a need for more PSIAs, but due to weak dissemination and restrictions on research time for the Pilot, its impact on broader policy (beyond the PRSP) was limited.

Recommendations provided in this report include:

- Overall, PSIA is a valued and useful instrument for evidence-based policy-making. If time permits, thorough PSIAs are preferable to pilots – as these (if implemented according to guidelines given below) are likely to yield more policy relevant recommendations.
- DfID and other donors should support PSIA-type studies. However, it is advisable now to consider how PSIA investments can be made in ways that strengthen sustained delivery, i.e. building institutional capacity of selected local research institutes/centres.
- Whereas the policy context has changed significantly following the completion of the Armenia PSIA Pilot, there are still a number of relevant policy questions that the report answers. However, two years since its completion, making the report broadly available is of limited value. Rather, it may be useful to prepare short articles about the Pilot for dissemination through various local journals.
- Furthermore, the Armenia PSIA Pilot can be up-dated – and used to answer emerging policy questions more effectively. Investing in an up-date may be cost-effective, as part of necessary research has already been completed.

- In order to maximise policy impact, the planning of future PSIA needs to follow certain guidelines:
 - ❖ If time permits, PSIA should fully investigate the multidimensionality of sectors under study and verify/generate appropriate data to formulate specific and needed recommendations;
 - ❖ Credible national and international researchers who have access to and influence in policy-making circles need to be drawn into PSIA teams;
 - ❖ The lag-time between drafting and finalisation of PSIA studies, as well as between finalisation, translation, and dissemination should be kept at a minimum;
 - ❖ Government ownership of a given PSIA study has to be strong. This involves consulting a broad range of policy makers and addressing the key policy questions that need to be answered;
 - ❖ There needs to be an institutional (government) counterpart for PSIA studies and agreement on follow-up steps;
 - ❖ Reports need to be preceded by efforts to understand users better (e.g. technical expertise, policy-making culture, etc.);
 - ❖ Funds have to be allocated for dissemination, follow-up, and the implementation of effective advocacy strategies at a local level;
 - ❖ Strategies should be devised before the launch of a PSIA that capitalise on factors which facilitate use (e.g. accessibility, prior sensitivity, timeliness, etc.) – and mitigate inhibitors of use (e.g. pressures on policy making, etc.); and
 - ❖ PSIA should not be dissociated from the capacity to use them and policy coherence issues – both of these factors need to be addressed.

- Donors should explore how to pool funds for PSIA in any given country to build institutional capacity for sustained delivery of such studies.

- There is a need to systematise the experience of national institutions undertaking PSIA studies in pilot countries. Donors should consider supporting the forthcoming Economic Research Institute (ERI) proposal to create an international PSIA network of these institutions.

- Strengthening capacity to use PSIA in Armenia needs to follow a strategy that addresses the following questions:
 - ❖ What institutional procedures should be put in place to ensure that PSIA is increasingly mainstreamed?
 - ❖ In which policy processes (e.g. PRSP, etc.) should PSIA figure as part of the standard agenda?

- A fuller assessment of specific capacity-building needs in government for the use of PSIA should be undertaken.

- Finally, in order to tackle the policy/data flux challenge, as well as improve delivery/use of PSIA, efforts to link future studies to relevant monitoring and evaluation frameworks should be initiated.

1. INTRODUCTION



**Artak Arakelian,
Deputy, National
Assembly**

“We are making mistakes with reforms [...] often because of incomplete investigation of the issues and this hurts the poor.”

1. Poverty and social impact assessment (PSIA) involves “the analysis of the distributional impact of policy reforms on the well-being of different stakeholder groups, with a particular focus on the poor and vulnerable” (World Bank, 2003). In an effort to understand how such analysis can enhance poverty reduction efforts the World Bank (WB) and the Department for International Development (DfID) launched a series of PSIA studies in 2002.

2. DfID commissioned pilot ex-ante PSIA studies in seven countries based on demand from national governments, including Honduras (electricity reform), Mozambique (fuel tax), Uganda (export promotion), Rwanda (macro policy), Armenia (water policy), Indonesia (rice tariff) and Orissa State India (public finances). The stated aim of these studies was to “provide lessons to national governments in developing countries, as well as partners in the donor community, on what could be done, and how. These pilots were “quick and dirty” - they aimed to demonstrate what is possible using existing data. They took about 16 person-weeks, generally over about 3 months” (Hanmer and Hendrie, 2002). The Armenia PSIA Pilot concluded (see Annex 1 and 6 for a fuller summary):

- In the municipal water sector, while reforms were preceded by a number of studies analysing possible alternative reform scenarios (the main one being “Utility Pricing and the Poor” World Bank, 2001), they lacked a solid analytical basis.
- Reforms, including elimination of subsidies, tariff increases and imposition of a stringent payment discipline are very much needed as inaction would lead to further deterioration of the entire water delivery system.
- Through careful design of reforms, parallel reform measures, strategic investments in infrastructure, cost-recovery efforts can be launched and the impact on the poor minimised.
- In their current form, the reforms will have a significant negative impact on the poor, particularly reforms in the irrigation sector.
- To mitigate these negative poverty and social impacts, and to ease the task of making the reforms politically feasible, a number of measures are needed, including:
 - ❖ The need to design specific assistance programmes for the poor both in municipal and irrigation water sectors;
 - ❖ Increased attention to community level projects aimed at the development of rural infrastructure and non-farm rural economies - ideally to precede any drastic increases in irrigation tariffs; and
 - ❖ Further reforms in local self government increasing their financial sustainability and decentralisation.

3. During the PSIA workshop held in The Hague (October 2003) demand was expressed from participating bilateral donors and national governments from developing countries that were not involved in the PSIA pilots, for a review of the direct and indirect impacts of these pilot studies. In response to the request, DfID commissioned an assessment of the policy impact of the Armenia PSIA pilot in January 2004 (see summary of PSIA Pilot/Armenia in Annex 1). The assessment was to:

- Advise on the usefulness and policy-impact of the DfID PSIA pilot in Armenia;
- Advise on how to ensure that future PSIA studies worldwide feed into pro-poor policy making; and
- Recommend to GoA and partners how sustainable capacity can be built for future evidence-based policy making.

4. The methodology used for the assessment is described in Annex 2. Over 18 days, it involved detailed discussions with DfID London/Yerevan on assessment expectations, a review of post-PSIA pilot activities, the definition of assessment ‘denominators’, structured interviews with over 25 key stakeholders (government officials, donors, and NGO representatives), a policy-maker roundtable, as well as establishment and use of a peer-review mechanism.

2. ASSESSMENT DENOMINATORS

5. An assessment of PSIA impact on policy making, as well as advice on enhancing future impact and recommendations for capacity-building needs to consider a range of contextual factors. These factors, described here as ‘assessment denominators’ provide for a more balanced analysis and highlight the assumptions that underpin this report. Assessment denominators considered relate to: (a) the aim of the PSIA Pilot in Armenia; (b) limitations to this assessment exercise; (c) the technical context of the PSIA Pilot; and (d) the policy context of the PSIA Pilot.

2.1. AIM OF THE PSIA PILOT IN ARMENIA

6. The terms of reference for the DfID PSIA pilots specified four outputs:

- A review of assumptions among policy makers about policy-poverty links;
- A demonstration PSIA on a selected macroeconomic or structural policy, with choice of policy justified with reference to national stakeholders views;
- Exposition of methods used and rationale for methodological choices; and
- Observations and recommendations regarding building future institutional capacity for PSIA (Hanmer and Hendrie, 2002).

7. The demonstration PSIA in Armenia focused on water sector reforms and was undertaken within a six-week period.

8. It is important to note in the terms of reference that the Pilot was a *demonstration* of PSIA – where the priority was to show “*what is possible using existing data*”, rather than to *influence government policy*.

2.2. ASSESSMENT LIMITATIONS

9. Given time constraints and the complexity of Armenian policy

processes, this assignment was focused on:

- *Visible policy-level impact* (e.g. has policy changed on paper) of the PSIA study – as opposed to field-level impact (e.g. was the policy implemented and how successful was implementation); and
- *How the future impact of PSIA studies can be enhanced from a technical perspective* (e.g. dissemination strategies) – as opposed to from a political perspective (e.g. how to engage vested interest groups) – but retaining political awareness.

10. Such an approach leaves out important factors in assessing impact, such as a full explanation of Armenian political issues conducive to implementation/non-implementation PSIA recommendations, a rigorous analysis of the policy-making culture in the GoA, and understanding the role of vested interest groups in the country. An impact assessment that takes these factors into consideration requires a more thorough and different research process than what was used here.

2.3. TECHNICAL CONTEXT

11. Policy impact of research is determined by a number of 'technical' factors including: (a) whether resources were allocated for impact; (b) how accessible research is for the target audience; (c) whether other research helped 'set the stage' for impact; (d) how conducive the data used is for the formulation of appropriate policy recommendations; and (e) whether the research is timely.

12. **Resource allocation for impact.** Resources were allocated for the translation and publication of the report in both languages: Armenian and English. Beyond this, dissemination of the report was limited and no resources were allocated for awareness-raising and advocacy purposes at a local level. The fact that the final Armenian version of the report was not officially presented to a wider local audience of policy-makers and the public, did affect its impact. However, DfID Armenia did send the final Armenian version to the main clients for the report, namely the Ministry of Finance and Economy, the State Committee of Water Resources, and the Ministry of Labor and Social Issues.

13. The explanation for limited resource allocation for impact is partly in the aim of the PSIA pilot; to demonstrate "what is possible using existing data", rather than specifically to influence government policy. However, to some extent private resources were used to enhance the impact of the pilot – particularly the personal policy making networks of key people (DfID personnel, ERI and individual consultants) involved in the project.

14. **Accessibility of the PSIA study.** Interviews conducted as part of this assessment show that those who have read the interim or final PSIA reports easily understood its content. The language used in the report is accessible, its substance relevant, and conclusions drawn defensible. However, a number of respondents stated that the report was too long.

15. Only one shorter version of the report was prepared for a



**Nelson Shahnazaryan,
Task Manager,
Economic Research
Institute of the Ministry
of Finance and
Economy**

“Quantitative data in Armenia is often unreliable. This may be because things change so fast and data gathering cannot keep up with developments. Or because figures are used to promote different institutional agendas.”

broader local audience by one of the Pilot Team members. An article was written for the USAID sponsored periodical “Economic Policy and Poverty” in May 2003 – with a readership of 400 (English) and 600 (Armenian).

16. **Synergy with other research.** The PSIA Pilot drew on and reinforced the results of other studies on water sector issues, particularly the report on *Utility Pricing and the Poor: Lessons from Armenia* (Lampietti, 2001). This report, for example, highlighted that further increases in tariffs for potable water would significantly affect the welfare of the poor and vulnerable part of the population – a conclusion reached by the PSIA Pilot as well.

17. It is likely, therefore, that the up-take of PSIA Pilot recommendations on certain issues benefited from previous research.

18. **Data reliability.** The short time-frame allocated for PSIA Pilot research did not allow for a comprehensive econometric model-building exercise using the best possible existing and new data. The Team used data from the Household Surveys and data on agricultural production from a source at the Ministry of Agriculture. The quality of the latter raised concerns and called for verification had there been sufficient time. The Team also referred to data from the State Committee of Water Resources (SCWR). SCWR objectivity, particularly in relation to data on water losses and the reasons for such losses, raised major questions. As such, data available – and time to assess data – affected the Teams ability to formulate specific and targeted recommendations.

19. **Timing.** The draft report was finalised in September 2002 – and could, to a large extent have been useful for policy makers at the time. However, the final version of the study was available in March 2003 – with the Armenian version available in September 2003.

20. It is important to note, though, that the PSIA pilot was undertaken in parallel to decision-making processes by different institutions on water sector reform. As such, strategies in some sectors (for example, on the use of meters to charge for household water consumption – as opposed to a block tariff for assumed consumption) were being adopted prior to the completion of the study. Nonetheless, it is clear that a number of recommendations in the PSIA Pilot are still relevant today. If the study had been disseminated effectively, sufficient time has now passed for the recommendations to be acted upon.



2.4. POLICY CONTEXT

21. The up-take of recommendations from research is also determined by the policy context in which it is undertaken. Policy factors considered here include: (a) whether research had relevant policy processes to feed into; (b) what political factors influence the up-take of recommendations made; (c) what other pressures on policy making research is in competition with; and (d) how vested

interests influence policy relevance and impact of research findings.

22. **Relevant policy processes.** There were existing policy processes that the PSIA pilot could naturally feed into. These included:



Artak Arakelian,
Deputy, National
Assembly

“Our nation is going from one extreme to another. People won’t pay for water, if we don’t deliver water – and on our promises.”

- The PRSP process underway at the time of PSIA Pilot research; and
- The State Committee of Water Resources (SCWR) proposal formulation on tariffs.

23. The Public Utilities Regulatory Commission (PURC) – an independent regulator – has now taken over the role of proposing tariffs from SCWR.

24. **Political factors.** In addition to the technical and policy factors mentioned already that affected the up-take of recommendations, a number of political factors are important:

- Water reform was, is, and will be high on the policy agenda in Armenia;
- Elections, both presidential, and parliamentary affected both the policy making climate and resulted in a reshuffling of policy makers;
- Opposition parties have become relatively stronger over the last years – particularly in the sphere of economic policy. Utilities and tariff increase issues are among the dominating ‘political battlefields’;
- Lack of trust among the urban and rural population in government and its ability to improve the provision of irrigation water efficiently and equitably; and
- National security concerns are important considerations, particularly the unresolved conflict in Kharabakh and political/historical problems with Turkey. How border regions are affected by different policies is a key governmental concern.

25. **Internal and external pressures.** Pro-poor policy is affected by a number of inter-linked internal and external factors in Armenia. To mention some:

- The main governmental concern that drives policy is severe budget constraints. This results in drastic measures to cut subsidy schemes for expanded budget expenditures on social issues;
- There are divergent views on how poverty should be reduced. Some politicians argue that “poverty reduction” should not be an explicit national goal in itself, but rather an outcome that follows a drive to foster economic growth; and
- The recent WTO accession is also among the driving engines of government policy making. Pressures on government fiscal policy from accession affect reform policy.



Farmer, Garni Region

“[On charging for water supply (with no meters) and tariffs] I never know if I am cheating.”

26. **Vested interests.** Corruption is one of the main problems that Armenia faces today. The recently adopted Anticorruption Strategy and its implementation reflect an appreciation of the problem. Corruption partly manifests itself in resistance by vested interest groups to reform processes that endanger personal gains. Such resistance includes lobbying for or against certain policies, boycotting the implementation of agreed ones, and manipulating data.

them – or they me.”

27. In terms of data manipulation, for example, water losses reported by the government authorities are largely attributed to the condition of water pipelines. It is common knowledge, however, supported by anecdotal evidence and focus group interviews in the PSIA Pilot that water is lost not only due to the deteriorated condition of infrastructure, but also unaccounted for (and illicit) use of water. Currently, the independent regulator (PURC) is tasked to assess the reliability of data in the sector – as well as the water losses presented by state water operators.

3. FINDINGS

28. Findings are given here in relation to assessment objectives and questions posed in the DfID terms of reference.

3.1. USEFULNESS AND POLICY-IMPACT OF THE DFID PSIA PILOT IN ARMENIA



**Vahram
Baghdassaryan,
Deputy, National
Assembly**

“This research can be very useful for the country. For example, it is always difficult to decrease tariffs – therefore the impact of any increases need to be studied carefully.”

29. *How useful was the PSIA Pilot in Armenia?*

30. The usefulness of the DfID PSIA Pilot is partly reflected in the perceived value of the report. Interviewees and roundtable participants stressed the following positive issues:

- The report is seen as of high quality, theoretically sound, and based on rigorous analysis;
- The analysis presents a compelling case for the need to assess direct and indirect impact of reforms on vulnerable groups; and
- The research process used was quite consultative – leading to awareness of PSIA and a stronger analysis.

31. Weaknesses cited include:

- Limited research time meant that the multidimensional impact of reforms was not fully explored. For example, corrupt practices in irrigation and potable water delivery management and charging were not covered;
- Also due to time constraints, data gaps could not be filled and areas of potential data unreliability were not investigated; and
- As consequence, recommendations made were seen by some respondents as not sufficiently detailed.

32. The report generated much interest in PSIA. Almost all interviewees highlighted a number of areas where PSIA-types studies would be of value – covering nearly all fields of public policy. To mention some:

- Reforms in utilities and irrigation;
- Reforms in education and health care spheres;
- The impact of donor activities;
- The heating sector and links to deforestation; and
- Community development.

33. The estimated policy impact of the PSIA Pilot is described below in relation to key questions raised in the assessment terms of reference.



Hranush Kharatian,
Head of National
Minorities and
Religious Issues, GoA

“The theoretical soundness of the PSIA study is good. However, sometimes recommendations based on sound theory don’t work in practice.”

34. *How did the PSIA feed into policy processes?*

35. Of the two policy processes mentioned above (see paragraph 22) the PSIA Pilot fed into the work of the PRSP Working Group. Three well-placed respondents in government stated that study findings were considered in PRSP discussions. Aside from the value of the report, this can be explained by Armenak Darbinyan’s (PSIA Pilot Team) membership in the Working Group and his (and other Armenian PSIA Pilot Team members) personal networks in government policy making circles. There is little evidence to suggest that the report was used by line ministries (beyond those represented in the PRSP) or civil society organisations.

36. *How much awareness of and interest in the report is there amongst government, NGOs, media, and other stakeholders? What factors mitigated/contributed to awareness/interest?*

37. Awareness of the PSIA report was limited due to restricted dissemination and follow-up after the study was finalised. Most interviewees, for example, knew about the report as they had participated in a seminar during the research process, but had not received the final version. Among members of related WB Project Implementation Units, for example, there was interest in the study, but also frustration that they had not received the final report.

38. *Who used the report and how (in government, NGOs, media) and who was expected to do so, but did not? In what way did it contribute to the policy debate?*

39. As mentioned above, the use of the report material (through occasional up-dates) was limited to the PRSP Working Group. Given limited allocation of resources for follow-up, it seems that very few stakeholders were expected to use the study.

40. *Have any elements (and principles) of the PSIA methodology been replicated in other areas of government policy making. If few or none, why?*

41. No evidence was found to suggest that specific elements of the PSIA methodology have been replicated in government policy making.

42. As stated by Tigran Khachatrian, “PSIA is part of a new culture of public policy implementation”. PSIA is currently not embedded in government largely due to competing priorities and limited institutional capacity.

43. However, during the roundtable held with the PRSP Working Group, and in response to the question, “Does Armenia need PSIAs?” members concluded that it is important – and that it should be linked to PRSP monitoring and evaluation efforts.



44. Did the PSIA have any indirect political impacts, such as increasing the credibility of a particular grouping, institution, or individual?



Irina Movsesyan, Task Manager, EC Delegation for Georgia and Armenia

“PSIA can make government policy makers work in a systematic way and raise their awareness of poverty issues in the sector under study.”

45. Two important areas of indirect impact were identified:

- Awareness of PSIA as a concept and its value is high among the government officials, donors, and NGO representatives. The pilot, and particularly the consultative approach utilised in the research process had an important awareness-raising impact; and
- GTZ is preparing to commission further PSIA studies and UNDP to integrate PSIA into its proposed PRSP monitoring and evaluation framework. Whereas the impetus for GTZ is not directly related to the PSIA Pilot, the success of the Pilot can be said to have encouraged these developments.

46. In terms of the PSIA Pilot raising the credibility of a particular grouping, the study may have bolstered the position of the Economic Research Institute (ERI). However, it is more likely that the use of the ERI and the national team selected for the exercise served more to strengthen the credibility of the PSIA Pilot.

47. Which recommendations in the PSIA pilot have been implemented, are in process of implementation, are under consideration, and will not be implemented?

48. The recommendations and conclusions of the PSIA Pilot that are visible (or partly reflected) in current policy are given below. See Annex 6 for a complete comparison between Pilot recommendations and policy up-take.



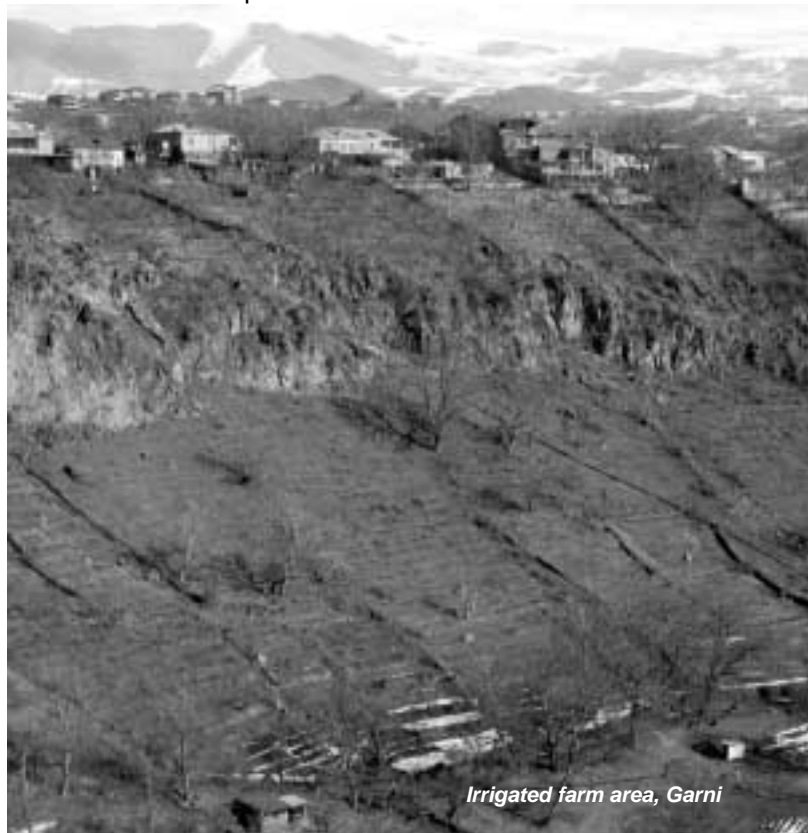
Larisa Alaverdyan, Executive Director, Fund Against Violation of Law

“The PSIA study recommendations are not fully reflected in the PRSP because it is more of a policy document. As for the PRSP plan of action, it is too abstract.”

- The PRSP reflects the concern stressed in PSIA Pilot report that if irrigation tariffs are to be set according to zones, there will be a need for alleviating its potential social impact in certain regions.
 - ❖ *“If tariffs are set according to zones, there will be a need for alleviating its potential social impact in certain regions: thus government may channel budget savings accumulated on suspension of subsidies to those regions (this may be done under the financial adjustment policies or other methods, with the final choice to be further investigated” (Paragraph 385, p. 136: PRSP, 2003).*
- The PSIA Pilot recommends mass installation of water meters

"on a more generous instalment basis of payments spread over several years. [...] Meters for the extremely poor should be installed free of charge" (*Water Sector Reform in Armenia: A Pilot Study*, March 2003). Current policy is that the government installs meters for those in the Family Benefit System *free of charge* and for those in the list of vulnerable of the Ministry for Social Protection it provides a mechanism for *gradual repayment of the cost of the meters*. This scheme was stipulated by a Law (09/12/2002) on privileges granted for water services payments.

49. The PSIA Pilot study had several recommendations to precede or accompany any drastic increase in potable water or irrigation tariff levels. The government has not yet outlined the nature of social protection mechanisms that will be put in place to mitigate the negative impacts on vulnerable groups once tariffs for potable and irrigation water are increased. As such, the PSIA recommendations on tariffs and social protection mechanisms are still relevant.



50. There is also doubt in PSIA Pilot study about the merits of using condominiums as the main conduit between the water companies and consumers. Evidence suggests that the approach is problematic and the government is now looking into alternatives, such as instituting the notion of "professional managers".

51. The PSIA Pilot raises questions about the effectiveness of excluding communities from the provision and regulation of potable water delivery. Although water infrastructure belongs to local communities (municipalities), their management was transferred to water operators for the coming 50 years. Incentives are therefore weakened that would otherwise stimulate both efficiency in local government operations and the implementation of pro-poor policies.

52. *How significant and pro-poor are the implemented recommendations?*

53. Many of the recommendations made in the PSIA Pilot have been applied by Nor Akunq, a joint stock water supply company in Armavir that is supported by GTZ. Although there is no relationship between the PSIA Pilot and Nor Akunq, interviews suggest that the approach taken has a positive impact on the poor.

54. This assessment concludes that the PRSP integration of the concept of alleviating potential impact of tariffs in specific regions is pro-poor. However, as it has not yet been implemented it is impossible to determine how significant this recommendation is for vulnerable groups.

55. *Has the PSIA led to related policy change not recommended?*

56. No evidence was found to suggest that the PSIA Pilot led to policy change that was not recommended.

57. ***How important was the PSIA in affecting change?***

58. The PSIA Pilot demonstrated the value of PSIA to those who received the report, were briefed on its substance, and participated in the research process. Despite limited dissemination and follow-up, the study contributed to the PRSP, raised awareness of PSIA as a concept, and inspired confidence in selected donors for new studies. As such, the PSIA did affect policy making in selected areas (see paragraphs 48-51) of the PRSP – although in view of the assessment denominators (see paragraphs 6-27) the strength of any link between research and policy making can be questioned.

59. However, its impact could have been enhanced significantly if:

- Sufficient time had been available for: (a) fuller investigation of additional impact dimensions of water sector reform; (b) additional data collection and verification; and as a consequence (c) the elaboration of targeted and specific recommendations; and
- The study had been coupled with an effective dissemination and advocacy strategy.

3.2. PSIA FEED WORLDWIDE INTO PRO-POOR POLICY-MAKING

60. ***What factors were key in facilitating/inhibiting effective use of the report and what improvements could be made in future work?***

61. Previously mentioned facilitating factors that were conducive to effective use of the report include:

- The accessibility of the report (see paragraph 14);
- Sensitivity to the issues among policy makers partly due to previous studies (see paragraph 16);
- Timeliness of the report for policy makers (see paragraphs 19 and 20);
- The existence of relevant policy processes that the study could feed into (see paragraph 22);

- The fact that water reform issues were, are, and will be high on the policy agenda in Armenia (see paragraph 24);
- The perceived high value of the report (see paragraph 30); and
- The personal networks for PSIA Pilot Team members in policy making circles (see paragraph 35).

62. The consultative nature of the research process has been highlighted (see paragraph 30) and should be further elaborated:

- While selecting the field of study for the PSIA Pilot, a core group of key government officials were consulted. These included Tigran Khachatryan (Deputy Minister of Finance and Economy/GoA person in charge of the PRSP), Gagik Martirosyan (Chairman of the State Committee for Water Resources) and Ashot Yesayan (Deputy Minister of Social Protection).
- Consultations were held with key donor agencies, including the WB, UNDP, GTZ and others about the merits of selecting the area as a subject of PSIA analysis, the results of the studies carried out previously by them, and the potential for future PSIA related joint work.
- Non-state stakeholders made important contributions in preparations for and the implementation of the PSIA Pilot. These included:
 - ❖ NGOs specialised in sociological research, such as Sociometer and Hazarashen;
 - ❖ NGOs working at the community/municipality level, such as the “Community Finance Officers Association” and “Association of communities”; and
 - ❖ The focus groups undertaken as part of the PSIA with village council representatives, individual farmers and consumers of potable water (in particular inhabitants of multi-apartment buildings).

63. These consultations facilitated the use of the report in several ways: (a) a degree of ownership, awareness, and interest was created; (b) the PSIA Pilot was able to reinforce messages from existing research; and (c) the credibility, quality, and practical relevance of the report was raised.

64. Inhibiting factors mentioned earlier that reduced the effective use of the report include:

- Limited resources allocated for dissemination (see paragraph 12);
- Broad recommendations due to short time for investigation of additional issues and verification of data (see paragraph 18);
- Changes in institutional responsibility for the issue and reshuffling of policy makers (see paragraph 24);
- A range of competing pressures on policy making (see paragraph 25); and
- No time during the study to understand those who are perceived to be “detractors” of the reforms, or who, represent the vested interests in the sector (see paragraph 26).

65. In addition, whereas some ownership of the PSIA Pilot was visible among GoA policy makers interviewed, it was not broad-



Gagik Matevosyan,
Project Director,
Ministry of Agriculture/
International Fund for
Agricultural
Development

“PSIA needs to balance poverty concerns with other economic development agendas – and provide concrete recommendations to inform implementation of policy.”

based or particularly ‘deep’ for the following reasons:

- PSIA is a new concept and interviewed GoA policy makers did not quite know what to expect from the Pilot;
- Consultations appear to have been limited to generating consensus on the study topic, not the specific policy questions (e.g. level of tariffs) that needed answering; and
- Expertise on the topic within government (and relevant other institutions) was drawn on to a limited extent – reducing the sense among policy makers that they had contributed to the study.

66. Other factors inhibiting use are explained below.

67. *How significant were issues such as language, scope, length, and structure of reports? How might future reports be drafted so as to more effectively feed into policy-making?*

68. Future reports should be preceded by efforts to understand users better. Key questions that need to be answered include:

- What is the technical expertise of end-users (how familiar are they with the topic) and their ability to access report findings?
- What specific policy questions do they need answered and by when?
- How much time do they have to read – and how can reports be ‘packaged’ (different report products prepared) to address these constraints?
- How do they access written material – in hard copy or electronically (email or web)?
- Is the ‘policy making culture’ written or verbal in nature? Are briefings better than the simple submission of a report?
- How can the link between researchers and policy makers be strengthened? Should researchers serve as resource persons in policy formulation processes?

69. In the case of the PSIA Pilot in Armenia, it is clear that: (a) critical policy questions should have been identified from the start; (b) oral briefings would have been useful; and (c) the link between the PSIA Pilot Team and the PRSP Working Group was beneficial.

70. *How effective were different dissemination methods at ensuring the effective use of report findings – and how can these be improved?*

71. The value of a consultative research process (see paragraph 62) and links of PSIA Pilot team members to the PRSP Working Group (see paragraph 35) has been mentioned above.

72. In addition, the translation of the report into Armenian was important, although it should have been coupled with effective dissemination.

73. An important point here, however, is the need to reduce the lag-time, on the one hand between the drafting and finalisation of PSIA studies, and on the other between the finalisation, translation and dissemination of reports. As mentioned above, the draft PSIA Pilot report was completed in September 2002 – and the final version was available in March 2003. The Armenian version of the PSIA Pilot study was available in September 2003.

74. Policy makers often do not have the time to wait six months for a study – and in the Armenian case, the policy context changes rapidly. As such, a window of opportunity was lost due to delays – as well as limited dissemination.

75. Would it be worthwhile to take any action now with respect to the PSIA report?

76. Whereas the policy context has changed significantly following the completion of the PSIA Pilot, there are still a number of relevant policy questions that the report answers. However, after two years making the report broadly available is of limited value. Rather, it may be useful to prepare short articles about the Pilot for dissemination through various local journals.

77. Furthermore, the Armenia PSIA Pilot can be up-dated – and used to answer emerging policy questions more effectively. Investing in an up-date may be cost-effective, as part of necessary research has already been completed.

78. *What lessons can be drawn that would help improve the design of PSIA studies worldwide and further support to evidence-based policy making in Armenia?*

79. Key lessons from Armenia described above that would help improve the design of PSIA studies worldwide include:

- If time permits, engage in PSIA studies that fully investigate the multidimensionality of sectors under study and can verify/generate appropriate data (see paragraphs 18 and 31);
- When investing in a PSIA study, also allocate funds for local dissemination, follow-up, and the implementation of effective advocacy strategies (see paragraphs 12 and 37);
- Make part of PSIA teams credible national and international researchers with strong access to and influence in policy-making circles (see paragraph 35);
- Devise strategies before the launch of a PSIA that capitalise on factors that facilitate use – and mitigate inhibitors of use (see paragraphs 61 and 64);
- Strengthen ownership of PSIA – both in terms of the range of policy makers consulted, as well as in terms of addressing the key policy questions that need to be answered (see paragraph 65);
- Future reports should be preceded by efforts to understand users better (see paragraph 68);
- PSIA studies cannot be dissociated from the capacity to use the studies and policy coherence issues – both of these factors need to be addressed (see paragraph 95); and
- Reduce the lag-time between drafting and finalisation of PSIA studies, as well as between finalisation, translation, and dissemination (see paragraph 74).

80. In addition, the Armenian case highlights important institutional insights (paragraphs 81-84) – as well as a methodological challenges (paragraphs 85-87) for PSIA.

81. Follow-up to the PSIA Pilot was limited partly due to the lack of an institutional counter-part within government that could ensure and monitor the up-take of recommendations – as well as due to the



**Hayk Minassian,
President, Shen NGO**

“For PSIA’s to have real policy impact, donors need to be tougher on government and say, “if you don’t follow up on recommendations, next time you’ll get less money.”

limited institutionalisation of PSIA within government decision-making.

82. During the policy-maker roundtable and in several interviews it was stressed that there is:

- A need for standard agreements between donors, government, and implementing researchers on how such studies should be followed up after their conclusion; and
- A need to integrate PSIA as a key component of feasibility studies prior to donor projects or government reform processes – along the lines of, for example, the analysis of budgetary implications.

83. Regarding standard agreements, the PRSP Working Group saw itself as a logical counter-part for future PSIA studies. When asked about this option, most external interviewees agreed – but highlighted as well the need to align PSIAs with responsible line ministries.

84. It is important to note that some interviewees questioned whether the government is capable of handling PSIA as an integral part of policy making. These interviewees would stress that for PSIAs to have real impact, they need to become part of donor conditionality.



**Astghik Mirzakhanyan,
Project Co-ordinator,
United Nations
Development
Programme**

“PSIAs need to be integrated into comprehensive monitoring and evaluation frameworks both to ensure their continued policy relevance – as well as bolster the capacity for their effective delivery.”

85. Methodologically, PSIA studies present a ‘snap-shot’ of answers to policy questions that change over time – based on field realities (and data) that also changes (policy and data flux). Establishing mechanisms to make “PSIA – The Movie” as opposed to “PSIA – The Photograph” is a critical hurdle to overcome in efforts to further support evidence-based policy making worldwide and in Armenia.

86. A possible direction to explore in tackling the PSIA “policy and data flux” challenge is integrating PSIA efforts into broader PRSP monitoring and evaluations frameworks. UNDP’s proposed National Social Monitoring System (NSMS) offers an important opportunity in this regard.

87. The aim of the NSMS is to organise and co-ordinate monitoring and impact evaluation of PRSP implementation. The system will provide: (a) a relevant methodology for the monitoring of indicators; (b) a methodology for the collection of indicators and periodicity, consolidation and processing, as well as analysis; (c) measures aimed at training and skills improvement among staff involved in the PRSP monitoring and evaluation system; and (d) approaches for civil society participation in PRSP implementation and the mechanisms for notifying the general public of progress.

88. As stated above (see paragraph 53), a number of the recommendations made in the PSIA Pilot have been applied by Nor Akunq, a joint stock water supply company in Armavir. The Nor Akunq example raises another interesting observation; a number of interviewees asked for field-evidence (as opposed to evidence based purely on research) to inform action planning related to reform. Although it may not be possible to follow-up PSIA studies with a model project like Nor Akunq as a means of piloting recommendations on the ground, practical comparative experience from other regions to substantiate/inform recommendations would be useful.

3.3. SUSTAINABLE CAPACITY FOR EVIDENCE-BASED POLICY-MAKING

89. To what extent were (and how can) Armenian capacities to undertake and use policy-related analysis strengthened through the PSIA?

90. PSIA is not a single methodology, but a 'tool kit' of methods used to assess the poverty and social impact of interventions. The PSIA Pilot Team in Armenia was highly qualified, so the capacity-building value was not so much in building skills for the use of different methods, but rather in:

- Increased awareness of the PSIA concept;
- Applying a range of known methods for the purpose of PSIA; and
- The experience (and challenge) of working in a multidisciplinary team.

91. Nonetheless, integrating PSIA as part of national policy-making means building capacity for such studies among local researchers and their institutions. In the Armenian case, part of PSIA capacity-building has to involve broadening the base of institutions that can inform policy-making. Currently, very few (four or five at the most) organisations have the capacity to undertake quality PSIAs.

92. As such, capacity-building for PSIA delivery needs to involve two inter-linked approaches:

- Support to skills development initiatives in relevant social science methods; and
- Infrastructure and core-funding support to promising research institutions.

93. PSIAs, however, are currently quite expensive, with one donor citing a cost of approximately USD 50,000 per study. Furthermore, expenditure on one-off PSIAs does not particularly strengthen sustainable capacity to deliver them. As such, it might be useful to explore how donor funds for PSIAs can be pooled in any given country to build institutional capacity for sustained delivery of such studies. For example, as a rough estimate, two PSIA studies in Armenia would help build and sustain capacity in a research institute (five specialists, infrastructure, and quality control) for approximately one year. In that period, two PSIA studies could be prepared by the supported institution.

94. In addition, given that the PSIA-field (and its application to policy, as opposed to projects) is quite new, there is a need to systematise the experience of national institutions undertaking these studies in pilot countries. In this regard, the Economic Research Institute (ERI) is considering to prepare a proposal to create an international PSIA network of these institutions that looks at how: (a) PSIA 'good practice' can be shared across countries; (b) PSIA-related methodology can be developed to address local contexts and challenges; and (c) practical experience in reform processes can be shared.

95. Sustainable use of PSIA in government policy-making also requires a range of strategic and capacity-building initiatives:



**Roger Robinson,
Country Manager,
World Bank**

“PSIAs are useful as they can help guide mid-term reviews and highlight necessary remedial action.”

- In terms of the ‘embedding’ of PSIA in government policy-making, several strategic directions should be explored:
 - ❖ If the capacity to deliver PSIA is set outside of government, how can this capacity be linked to civil society advocacy for follow-up purposes and accountability?
 - ❖ What institutional procedures (creating legislation to ensure governments do PSIAs prior to reforms, integrating PSIAs as part of pre-appraisal work) should be put in place to ensure that PSIA is increasingly mainstreamed?
 - ❖ In which policy processes (e.g. PRSP, etc.) should PSIA figure as part of the standard agenda?
- Capacity-building for the use of PSIA requires awareness-raising issues, concrete training, and practical help:
 - ❖ PSIA awareness efforts should not only involve the preparation of leaflets, etc. but also briefings with appropriate policy makers prior to the launch of any given study;
 - ❖ It may be worthwhile to explore how PSIA can be incorporated into staff training schemes in ministries, and public policy higher education degrees;
 - ❖ Practical help identified by a number of interviewees included: (a) training in public policy design and implementation; and (b) using PSIA to overcome policy coherence issues by bringing relevant officials together around cross-cutting reform issues.
- Capacity for the deliver and use of PSIA is likely to be strengthened if future studies have a strong link to relevant (e.g. PRSP) monitoring and evaluation frameworks (see paragraph 87).

4. CONCLUSIONS

96. The main conclusions of this assessment are given below in relation to the objectives of the assignment.

97. *The usefulness and policy-impact of the DfID PSIA pilot in Armenia*

98. The aim of the PSIA Pilot was to show “what is possible using existing data”, rather than specifically to influence government policy. As a consequence perhaps, limited resources were allocated for policy impact and the study was not broadly disseminated.

99. The PSIA Pilot demonstrated the value of PSIA to those who received the report, were briefed on its substance, and participated in the research process. Despite limited dissemination and follow-up, the study contributed to the PRSP, raised awareness of PSIA as a concept, and inspired confidence in selected donors for new studies. As such, the PSIA did affect policy making in selected areas (see paragraphs 48-51) of the PRSP – although in view of the assessment denominators the strength of any link between research and policy making, of course, can be debated. It is

nonetheless clear that the Pilot's impact would have been enhanced significantly if more time had been given to research and if findings had been disseminated.

100. *How to ensure that future PSIA studies worldwide feed into pro-poor policy making*

101. Key lessons from the Armenia PSIA Pilot is that such studies feed into pro-poor policy making when:

- If time permits, PSIAs fully investigate the multidimensionality of sectors under study and verify/generate appropriate data to formulate specific and needed recommendations;
- Credible national and international researchers who have access to and influence in policy-making circles are drawn into PSIA teams;
- The lag-time between drafting and finalisation of PSIA studies, as well as between finalisation, translation, and dissemination is kept at a minimum;
- Government ownership of a given PSIA study is strong. This involves consulting a broad range of policy makers and addressing the key policy questions that need to be answered;
- There is an institutional (government) counter-part for PSIA studies and agreement on follow-up steps;
- Reports are preceded by efforts to understand users better (e.g. technical expertise, policy-making culture, etc.);
- Funds are allocated for dissemination, follow-up, and the implementation of effective advocacy strategies at a local level;
- Strategies are devised before the launch of a PSIA that capitalise on factors which facilitate use (e.g. accessibility, prior sensitivity, timeliness, etc.) – and mitigate inhibitors of use (e.g. pressures on policy making, etc.); and
- PSIAs are not dissociated from the capacity to use them and policy coherence issues – both of these factors are addressed.

102. *How sustainable capacity can be built for future evidence-based policy making*

103. Integrating PSIA as part of national policy-making means building capacity for such studies among local researchers and their institutions. In the Armenian case, part of PSIA capacity-building has to involve broadening the base of institutions that can inform policy-making – in addition to skills development.

104. Given that the PSIA-field (and its application to policy, as opposed to projects) is quite new, there is a need to systematise the experience of national institutions undertaking these studies in pilot countries.

105. The sustainable use of PSIA in government policy-making requires further exploration of a range of strategic and capacity-building opportunities.

106. Capacity to deliver and use PSIAs is likely to be strengthened by linking future studies to relevant monitoring and evaluation frameworks.

5. RECOMMENDATIONS

107. Based on the above analysis, the following recommendations are made:

- Overall, PSIA is a valued and useful instrument for evidence-based policy-making. If time permits, thorough PSIAs are preferable to pilots – as these are likely to yield more policy relevant recommendations.
- DfID and other donors should support PSIA-type studies. However, it is advisable now to consider how PSIA investments can be made in ways that strengthen sustained delivery, i.e. building institutional capacity of selected local research institutes/centres.
- Whereas the policy context has changed significantly following the completion of the Armenia PSIA Pilot, there are still a number of relevant policy questions that the report answers. However, after two years making the report broadly available is of limited value. Rather, it may be useful to prepare short articles about the Pilot for dissemination through various local journals.
- Furthermore, the Armenia PSIA Pilot can be up-dated – and used to answer emerging policy questions more effectively. Investing in an up-date may be cost-effective, as part of necessary research has already been completed.
- In order to maximise policy impact, future PSIAs need to follow certain guidelines and involve preparatory work as outlined in paragraph 101.
- DfID and other donors should explore how to pool funds for PSIAs in any given country to build institutional capacity for sustained delivery of such studies.
- Given the need to systematise the experience of national institutions undertaking PSIA studies in pilot countries, DfID and other donors should consider supporting an Economic Research Institute (ERI) proposal to create an international PSIA network of these institutions.
- Strengthening capacity to use PSIA in Armenia needs to follow a strategy that addresses the following questions:
 - ❖ What institutional procedures should be put in place to ensure that PSIA is increasingly mainstreamed?
 - ❖ In which policy processes (e.g. PRSP, etc.) should PSIA figure as part of the standard agenda?
- A fuller assessment of capacity-building needs in government for the use of PSIA should be undertaken.
- In order to also tackle the policy/data flux challenge, as well as improve delivery/use of PSIAs, efforts to link future studies to relevant monitoring and evaluation frameworks should be

initiated.

ANNEXES

ANNEX 1: SUMMARY OF ARMENIA PSIA PILOT

Adapted from "Poverty and Social Impact Assessment (PSIA)—Demonstrations Water Sector Reform in Armenia", DfID (2003).

Introduction

Poverty and Social Impact Analysis

Poverty and Social Impact Analysis (PSIA) is an important feature of the new approach to supporting poverty reduction in developing countries, characterised by the development of Poverty Reduction Strategies (PRS). PSIA is defined as the analysis of intended and unintended consequences of policy interventions on the well-being or welfare of different groups, with a special focus on the vulnerable and poor. Well-being or welfare includes the income and non-income dimensions of poverty.

The overarching objective of PSIA is to promote evidence-based policy choices, by explicitly including poverty and social impacts in the analysis of policy reforms, and to build country ownership of policies by informing a public debate on the trade-offs between policy choices.

Analysing poverty and social impacts is not new, but it has yet to be routinely applied to macroeconomic and structural policy measures. In August 2000, the IMF and World Bank agreed to consider the poverty and social impact of major reforms in their lending programmes to poor countries. In 2001, DFID in collaboration with the World Bank undertook to support demonstration studies in six countries where governments and other national stakeholders expressed clear demand for PSIA (including Indonesia, Honduras, Armenia, Uganda, Rwanda, and Mozambique). In October 2002, findings from the DFID- and World Bank-supported pilot studies were brought together at a workshop in Washington DC. Key findings of the workshop include that it is feasible to undertake PSIA using existing data and knowledge in country, and that for PSIA to be effective in informing policy decisions, it needs to be country-owned and embedded in the national PRS process.

The Origins of the Armenia PSIA

Interest within Armenia. The topic was selected from a longer list of candidate topics jointly by the research team and the GoA officials responsible for the PRSP process.

Poverty Reduction Strategy. Given the post-independence economic experience, the policy response to poverty stresses a stable macroeconomic situation and market reforms. However, it also stresses that social support must be made more efficient. Also, there is some concern that the benefits of economic growth are not felt by enough people and that there should be more analysis of the poverty impact of reforms, leading to more explicit pro-poor policies and expenditure.

Choice of Topic. Water sector reform is an important part of the overall reform agenda in Armenia. Water has significant poverty and social consequences related both to the costs of paying for supplies (ie. charges and collection rates) as well as the benefits from using a reliable supply, notably for small farmers and water-borne disease. Water sector reform also has a major macroeconomic impact, because of the current level of subsidies (about 2% of GDP in recent years) and the effect on agricultural sector growth and the investment needed to improve supply.

From a methodological perspective, it was felt that there was considerable existing data available, which was important, given the time constraints. Also, the local research team had good experience in the water sector and could therefore start work efficiently.

Water sector reform in Armenia started in 1999 with the Integrated Water Resources Management Planning (IWRMP) Study, which aimed to define a comprehensive policy framework, taking into account economic, financial, environmental, social and institutional considerations. Reforms were designed to attain financial sustainability and commercial operations for all water supply companies by 2008. This will require major capital investments using loans on favourable terms and increased receipts from billing collections. Estimated investments needed for the first five years are \$200 million. To achieve the above it will be necessary to modernise the existing legal and regulatory arrangements governing water resource management, and to implement tariff, institutional and administrative reforms. Although there

was some commitment to these reforms, the nature of the reforms was still under discussion, and it was felt that the PSIA could have some influence on the implementation of reforms.

Poverty in Armenia

After independence, there was a major decline in the large Soviet industries. Combined with the effects of a major earthquake, GDP fell by 50% and the budget deficit exploded to 48% of GDP, with inflation running at 5000% per annum. As a result there was a huge decline in livelihoods.

Reforms in 1994 reduced inflation to about 10% by 1996 and GDP growth was re-established and has been at about 5% since then. The budget deficit has been reduced to 3–7% of GDP and the external balance has been stabilised, largely through increased grants. However, growth has been narrowly based and has created few jobs, leaving 30% of workers are inactive.

As a result, poverty indicators remain very bad: around 50% of the population live below the poverty line and the Gini coefficient (0.57) suggests that inequality is amongst the highest of CIS countries.

A PSIA on Water Sector Reform

Methodology

The PSIA allowed for one month of research, and covered both municipal and irrigation water. To make the best use of these limited resources, the analysis made extensive use of existing previous research. In addition, the study analysed the available household survey data from 1998/99 and 2001 surveys. For municipal water, quantitative work was limited to the analysis of existing information on farm costs and revenues.

For both municipal and irrigation water reforms, qualitative assessments were made, based on discussions with key informants and on stakeholder analysis using focus groups.

The existing research provided clear conclusions on the possible impact of water sector reform. The PSIA aimed to identify any consequences which might have been overlooked and to define additional work which might be needed to address these areas. It also put a major emphasis on defining mitigating measures associated with the reform options.

Findings

Municipal Water. Reforms in the municipal water sector are needed, since maintaining the status quo will lead to further deterioration of supply. In particular, it is essential to reduce losses, improve collection rates, reduce energy costs and increase salaries and other expenditure to ensure an efficient service.

There are a number of concerns about the effect of these policies on the poor:

- non-compliance is widespread and is not a consequence of poverty; however, increasing collection would affect the poor, along with other groups. Full payment compliance of existing tariffs would increase the numbers of the very poor by nearly 18% (from 15.9% of the population to 18.7%) and the poor by 4.6% (from 35.0 to 36.6%);
- an analysis of tariffs and compliance suggests that the tariff that maximises revenue to the Water Utilities is 5 AMD per 10 litres. This is associated with compliance rates of 40% (rural) and 65% (urban). At higher prices both revenue and the degree of usage of the system decline;
- collection of arrears would also have a major impact on poverty, since the average level of arrears is \$9 per month, which is a significant proportion of the minimal monthly consumption basket;
- the full cost of meter installation (\$30) would be a very high burden on poorer families.

The qualitative assessment concluded that the reforms are taking place in a rather difficult environment. Concerns included the following:

- the policy balance between treating water as an economic good (private or public) versus a basic human need is particularly difficult and potentially very contentious in Armenia, where social consensus has broken down;
- resistance to reform is also due to tensions between vested interests, some of which is poorly understood;
- getting people to pay for their actual water consumption is probably the most complicated part of the reform and is fraught with difficulties.

To mitigate these negative poverty and social impacts, and to ease the task of making the reforms politically deliverable the PSIA proposes the following measures.

- proceed with the mass installation of individual water meter, with subsidised installation for the poor;
- run a well designed public awareness campaign to underline the importance of reforms for sustainability, fairness and transparency to explain reforms;
- assist poor households with arrears forgiveness and a programme of additional allowances;
- consider a block tariff, or a lifeline tariff, to reduce costs to households at various levels of poverty, and to give more conservation incentives for the rich;
- consider various solutions for water supplies to condominiums, including the model in Armavir ('Nor Akunq').

A Water Supply and Wastewater Services Project provides a framework for water reform. This will include a Social Assessment, which will include qualitative and quantitative analysis to ensure the poor benefit from the reforms. Further research is required in the following:

- regular monitoring and evaluation of household water consumption behaviour and preferences, and careful analysis to design an optimal water tariff (eg using stated and revealed preference data);
- analysing ability and willingness to pay, in relation to housing fees;
- a survey to reveal the most appropriate mechanisms of social assistance.

Irrigation Water. Agricultural growth is critical to poverty reduction in Armenia and is dependent of effective irrigation. Yield differences between irrigated and rain-fed agriculture are large. However, there are major problems:

- the irrigated area has declined since 1991 from about 80% to 70%;
- tariffs cover only 30–60% of costs;
- Soviet delivery systems designed for large collective farms are inappropriate for today's smaller farms;
- the availability and supply costs of irrigation vary greatly by region as do yields of main crops (mountainous regions having higher costs and lower yields).

These problems suggest that an increase in irrigation tariffs is needed. The status quo is wasteful and undermines the sustainable development of the sectors due to deteriorating infrastructure, losses and environmental damage. But the pace, shape, preconditions and risks associated with these reforms have to be considered carefully.

The impact of higher tariffs and improved collection will cause a major problem for the 25% of rural households who have no cash income. For those households which do sell part of their crop, the yields and surplus generated are highly variable:

- in Shirak, Armavir and Ararat there is little cropping and the impact of irrigation is felt through the cost of fodder crops and the profitability of livestock;
- some of the most serious deterioration in water systems is concentrated in Aragatsotn, Kotaik, and Sunik;
- the already poor farming situation in Tavush and Lori will deteriorate further.

The qualitative analysis suggests that the concept of an average farm can hide major differences, especially between households which sell some production and households which rely on subsistence. In difficult areas, focus groups expect a 30–40% quit rate from farming in the next few years and higher water tariffs are an important factor affecting this decision. There are also major differences in the way Water Users Groups operate. Corruption is perceived as the root cause of the high incidence of non-payment and reform objectives will fail unless this problem is addressed.

There are some important risks associated with irrigation reforms. They are likely to increase poverty levels, as a result of actual farm closures or weaker finances which in turn could exacerbate emerging polarisation and social tensions in rural areas. There will be accelerated population movement from rural to urban areas, adding to social tensions in the latter and intensifying already uneven economic development. This may lead to some security risks with de-population of some border areas as well as accelerating the already high levels of out-migration from Armenia. There may also be some environmental problems arising from greater use of drainage water. Finally, the increased costs of agriculture are likely to lead to increased food prices, which will hit the urban poor hardest.

The following measures should be considered for mitigating the poverty impact of price increases:

- providing community level assistance aimed at developing infrastructure and development of non-farm sector in rural areas, and especially in the most badly affected areas;
- developing mechanisms for assisting poor rural households (eg. using the pilot programme irrigation voucher scheme);
- fostering the development of co-operative mechanisms in agriculture and Water User Groups;
- implementing pilot projects in several water resources management areas with serious problems (eg. scarcity, drainage, pollution) to develop local programmes to mitigate irrigation charges;
- conduct various surveys and studies to monitor reforms and integrate the results of pilot activities.

This and other studies in Armenia have predicted that through the careful design of reforms and strategic investments in infrastructure, cost-recovery efforts can be maintained, and the impact of these on the poor minimised.

Methodological Lessons Learnt

In a country where there are big gaps in basic data, it is unrealistic to expect a rapid PSIA to correct this fact. Rather, a rapid PSIA will need to rely heavily on existing research results and secondary materials that may be imperfectly attuned to the needs of the study.

However, some limited gap-filling on data and on primary research of a non-quantitative nature is feasible. Simple and rapid household surveys could also inform certain aspects of utility pricing decisions. Qualitative discussions are needed to define implementation modalities. This information gathering work must be planned at a very early stage of the analysis.

Substantive econometric and other modelling approaches are unlikely to be feasible in a rapid PSIA. However, if the data is available, econometric analysis can be used to give better insights into key parameters such as demand elasticities.

It will always be difficult to connect quantitative and qualitative analysis to give a holistic picture of who is likely to benefit. The dynamics of rural change are far too complex to be captured by the simple methods used in the PSIA.

It is highly desirable to include senior decision-makers in the research process from the earliest possible stage in order to gain their ownership of the process and the eventual results, as well as their support for gaining access to materials and people.

Institutional Implications

Most PSIA will require a well connected local research group and leader. The local team should include members who already have some substantive familiarity with the PSIA topic, although a complete matching of skills with the substantive sub-topics for research is unlikely to be possible.

The pilot PSIA demonstrated the holistic strands of a topic such as water pricing. The Armenian government system tends to be disjointed and is poorly attuned to assessing the multiplicity of strands. To achieve this, it will be necessary to have a wide involvement from government.

The pilot depended on the support of the key policy and sectoral ministers. It will be important for the Presidential Administration to provide a stronger lead to the PRSP and PSIA processes if they are to acquire real influence.

Non-state stakeholders made important contributions to the PSIA. Much of the understanding of what is happening at the community level is outside government. But the lack of capacity in government itself is a key issue for future PSIA and PRSP activity.

The pilot addresses quite difficult technical issues and so is not immediately accessible to non-specialists. This complicates the task of overcoming the serious lack of public trust as government agencies seek to address and solve problems such as those of the water sector.

The International Finance Institutions should:

- recognise the local capacity problems more explicitly;
- take a more holistic approach themselves to structural reforms to ensure a more sustained focus on poverty objectives;
- recognise that domestic resources will remain limited and so commit to more coordinated approaches to commissioning PSIA.

Good PSIA calls for monitoring and evaluation both to validate the ex ante analyses and to influence the reformulation of policy. A unit needs to be set up which will conduct more comprehensive PSIA for water

sector reform, possibly integration municipal and irrigation water, and also conduct monitoring and evaluation for the reforms.

ANNEX 2: ASSESSMENT METHODOLOGY

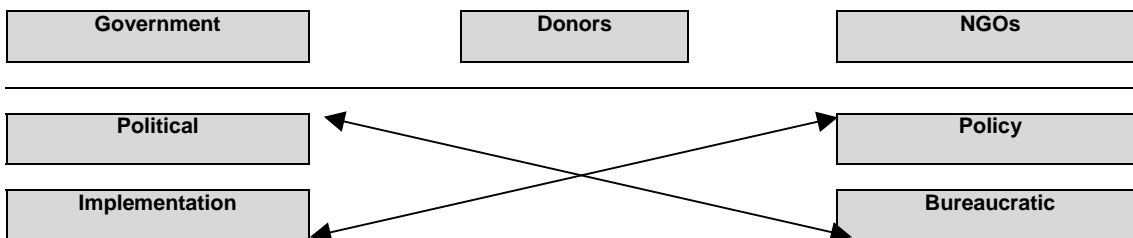
1. Assessment ‘denominators’

Assignment objectives were answered in view of: (a) the aim of the PSIA pilot in Armenia; (b) limitations to the assessment itself; (c) the technical context that influenced impact; and (d) the policy context that influenced impact. Assessment numerators and denominators are presented below.

Usefulness and policy-impact of the DfID PSIA pilot in Arm	PSIA feed worldwide into pro-poor policy-making	Sustainable capacity for evidence-based policy-making	
Aim of the PSIA pilot in Armenia	Assessment limitations	Technical context	Policy context
<ul style="list-style-type: none"> In theory In practice 	<ul style="list-style-type: none"> Visible policy impact Technical perspective 	<ul style="list-style-type: none"> Resource allocation Accessibility Synergy Data reliability Timing 	<ul style="list-style-type: none"> Policy processes Political factors Pressures Vested interests

2. Stakeholder perspectives

A range of stakeholder perspectives were gathered. In addition to the government, donor, and NGO categorisation outlined in the DfID terms of reference, additional sub-categories were drawn up. It was seen as useful to interview political leadership (e.g. Deputies of the National Assembly), as well as bureaucratic leadership (e.g. Deputy Ministers); and policy-level stakeholders, as well as implementation-level officials.



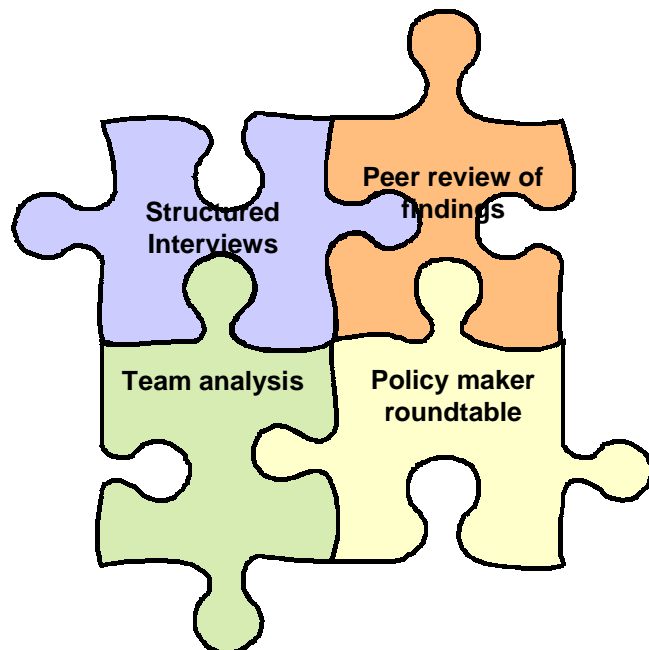
3. Methods applied

Interviews were based on a standard questionnaire and undertaken by Tigran Kostanyan and David Nyheim – neither of whom were part of the original PSIA Pilot.

Lilit Melikyan drafted the ‘denominator’ related analysis and Tigran Kostanyan the interview analysis. During the assessment, the team was convened to discuss these analyses.

Key assessment questions were raised in the PRSP Working Group – in order to inform the analysis with a ‘debate’ perspective among policy makers.

For peer-reviewing, the draft assignment was sent to independent experts familiar with the Armenian policy making environment. Their feed-back was incorporated.



4. Process

The in-country assessment of the PSIA pilot involved the following steps:

1. Review of post-PSIA study activities
 - ❖ PSIA report dissemination
 - ❖ Follow-up requests to the PSIA report and responses
 - ❖ Other initiatives
2. Analysis of assessment denominators
3. Structured interviews
 - ❖ Identify of appropriate interviewees (approximately 25 from government, donors, business, NGOs, civil society)
 - ❖ Preparation of appropriate questionnaires
 - ❖ Appointments set up and interviews
4. Team exercise – analysis of responses and policy analysis
 - ❖ Identify implemented responses
 - ❖ Analyse responses from a pro-poor perspective
5. Policy maker roundtable
 - ❖ Prepare agenda focused on improving use of future reports and capacity issues
 - ❖ Identify participants
 - ❖ Select venue, issue invitations, etc.
 - ❖ Hold roundtable (half day)
 - ❖ Write up report
6. In-country presentation of findings to DfID Armenia
7. Team discussion of findings

ANNEX 3: LIST OF INTERVIEWEES

1. Tigran Khachatryan (Ministry of Finance and Economy of RA, Deputy Minister)
2. Ashot Yesayan (Ministry of Labour and Social Issues of RA, First Deputy Minister)
3. Hrachia Tsepuntsian (Ministry of Agriculture of RA, Head of Department)
4. Levon Gyumishyan (State Water Committee, Head of Department)
5. Shiraz Kirakossian (Public Utilities Regulatory Commission, Commissioner)
6. Vahram Baghdassaryan (National Assembly of RA, Deputy Head of Standing Commission on Economic, Budgetary and Monetary Issues) – jointly with Hamlet Tamasyan, Artak Araqelyan (Members of Standing Commission on Health and Social Issues) and Volodya Badalyan (Member of Standing Commission on International Relations)
7. Varazdat Avoyan (“Municipal Development” PIU, Project Director)
8. Tigran Kalantaryan (“Water Sector Development and Institutional Improvement” PIU, Deputy Director)
9. Razmik Ohanyan (“Heating and Administration Bodies of Multi-Apartment Building Support” PIU, Director)
10. Gagik Matevosyan (Agricultural Services Project of IFAD, Project Director)
11. Roger Robinson (World Bank, Country Manager)
12. Astghik Mirzakhanyan (UNDP, Project Coordinator of “Creation of Social Monitoring and Analysis System” Project)
13. Irina Movsesyan (European Union, Task Manager)
14. Christopher Mallman (GTZ, Resident Government Adviser)
15. Armen Khudaverdyan (Armenia Public Sector Reform Programme, Deputy Team Leader)
16. Mushegh Tumasyan (“Economic Development and Research Center” NGO, Chairman)
17. Hranush Kharatyan (“Hazarashen” NGO, President)
18. Hayk Minassian (“Shen” NGO, President)
19. Vahan Movsissyan (“Communities Finance Officers Association” NGO, Chairman)
20. Aharon Adibekyan (“Sociometer” Independent Sociological Center, Director)
21. Larisa Alaverdyan (“Fund Against Violence of Law”, Executive Director)
22. Natella Lapauri (“Communities Association of Armenia” NGO, Executive Director)
23. Ruben Yeganyan (Economic Research Institute of the Ministry of Finance and Economy of RA, Task Manager of “Analysis of Migration Situation in Armenia” Project)
24. Nelson Shahnazaryan (Economic Research Institute of the Ministry of Finance and Economy of RA, Task Manager of “Outcomes of the Reforms in Social Sphere” Project)
25. Artashes Torosyan, Commercial Director for “Nor Akunq”

ANNEX 4: QUESTIONNAIRES

Three questionnaires were prepared for: (a) government officials; (b) NGOs and civil society groups; and (c) donors. These are presented below.

Government Questionnaire
1. Have you heard / are you familiar about the Pilot PSIA study?
2. If yes, do you agree with its recommendations?
3. Was the Pilot PSIA study used in the work that your agency carried/carries out? If yes, then how?
4. In your view was such a study needed?
5. In your view how much interest was/is there <u>in the topic</u> amongst government, NGOs, media, and other stakeholders?
6. In your view how much awareness of and interest <u>in the report</u> was/is there amongst government, donor agencies, NGOs, media, and other stakeholders? What factors mitigated/contributed to awareness/interest?
7. To your knowledge, who used the report and how (in government, donor agencies, NGOs, media) and who was expected to do so, but did not? In what way did it contribute to the policy debate?
8. To your knowledge, <ul style="list-style-type: none">– Were any elements (and principles) of the PSIA methodology been replicated in other areas of government policy making. If few or none, why?– Did the PSIA have any indirect political impacts, such as increasing the credibility of a particular grouping, institution, or individual?
9. To your knowledge, which recommendations in the PSIA pilot have been implemented, are in process of implementation, are under consideration, and will not be implemented? <ul style="list-style-type: none">– How significant and pro-poor are the implemented recommendations?– How important was the PSIA in affecting change?
10. To your knowledge, what technical factors were key in facilitating/inhibiting effective use of the report and what improvements could be made in future work? <ul style="list-style-type: none">– How significant were issues such as language, scope, length, and structure of reports?– How effective were different dissemination methods at ensuring the effective use of report findings?
11. What lessons can be drawn that would help improve the design of PSIA studies in Armenia and worldwide?
12. Would it be worthwhile to take any action now with respect to the PSIA report?
13. To what extent were (and how can) Armenian capacities to undertake and use policy-related analysis strengthened through the PSIA? <ul style="list-style-type: none">– What aspects of the PSIA research process used had capacity-building value? How can the research process be strengthened to build capacity?– What complementary activities (e.g. training, briefings, etc.) could be undertaken to enhance understanding among policy makers of PSIA findings?– Where should the capacity to conduct PSIA studies be located (e.g. within government, NGOs, academia) to maximise policy impact?
14. If you are familiar with PSIA methodology, how, in your view it could be strengthened to enhance impact?
15. What do you see as potential future steps to be undertaken in terms of PSIA-related activity in Armenia?
16. Does your agency plan to do any PSIA related work in Armenia?

NGO and civil society Questionnaire

1. Have you heard / are you familiar about the Pilot PSIA study?
2. If yes, do you agree with its recommendations?
3. Was the Pilot PSIA study used in the work that your NGO carried/carries out? If yes, then how?
4. In your view was such a study needed?
5. In your view how much interest was/is there in the topic amongst government, NGOs, media, and other stakeholders?
6. In your view how much awareness of and interest in the report was/is there amongst government, donor agencies, NGOs, media, and other stakeholders? What factors mitigated/contributed to awareness/interest?
7. To your knowledge, who used the report and how (in government, donor agencies, NGOs, media) and who was expected to do so, but did not? In what way did it contribute to the policy debate?
8. To your knowledge,
 - Were any elements (and principles) of the PSIA methodology been replicated in other areas of government policy making. If few or none, why?
 - Did the PSIA have any indirect political impacts, such as increasing the credibility of a particular grouping, institution, or individual?
9. To your knowledge, which recommendations in the PSIA pilot have been implemented, are in process of implementation, are under consideration, and will not be implemented?
 - How significant and pro-poor are the implemented recommendations?
 - How important was the PSIA in affecting change?
10. To your knowledge, what technical factors were key in facilitating/inhibiting effective use of the report and what improvements could be made in future work?
 - How significant were issues such as language, scope, length, and structure of reports?
 - How effective were different dissemination methods at ensuring the effective use of report findings?
11. What lessons can be drawn to help improve the design of PSIA studies in Armenia and worldwide?
12. Would it be worthwhile to take any action now with respect to the PSIA report?
13. To what extent were (and how can) Armenian capacities to undertake and use policy-related analysis strengthened through the PSIA?
 - What aspects of the PSIA research process used had capacity-building value? How can the research process be strengthened to build capacity?
 - What complementary activities (e.g. training, briefings, etc.) could be undertaken to enhance understanding among policy makers of PSIA findings?
 - Where should the capacity to conduct PSIA studies be located (e.g. within government, NGOs, academia) to maximise policy impact?
14. If you are familiar with the PSIA methodology, how, in your view it could be strengthened to enhance impact?
15. What do you see as potential future steps to be undertaken in terms of PSIA-related activity in Armenia?
16. Does your NGO plan to do any PSIA related work in Armenia?

Donor Questionnaire

1. Have you heard / are you familiar about the Pilot PSIA study?
2. If yes, do you agree with its recommendations?
3. Was the Pilot PSIA study used in the work that your agency carried/carries out? If yes, then how?
4. In your view was such a study needed?
5. In your view how much interest was/is there in the topic amongst government, NGOs, media, and other stakeholders?
6. In your view how much awareness of and interest in the report was/is there amongst government, donor agencies, NGOs, media, and other stakeholders? What factors mitigated/contributed to awareness/interest?
7. To your knowledge, who used the report and how (in government, donor agencies, NGOs, media) and who was expected to do so, but did not? In what way did it contribute to the policy debate?
8. To your knowledge,
 - Were any elements (and principles) of the PSIA methodology been replicated in other areas of government policy making. If few or none, why?
 - Did the PSIA have any indirect political impacts, such as increasing the credibility of a particular grouping, institution, or individual?
9. To your knowledge, which recommendations in the PSIA pilot have been implemented, are in process of implementation, are under consideration, and will not be implemented?
 - How significant and pro-poor are the implemented recommendations?
 - How important was the PSIA in affecting change?
10. To your knowledge, what technical factors were key in facilitating/inhibiting effective use of the report and what improvements could be made in future work?
 - How significant were issues such as language, scope, length, and structure of reports?
 - How effective were different dissemination methods at ensuring the effective use of report findings?
11. What lessons can be drawn that would help improve the design of PSIA studies in Armenia and worldwide?
12. Would it be worthwhile to take any action now with respect to the PSIA report?
13. To what extent were (and how can) Armenian capacities to undertake and use policy-related analysis strengthened through the PSIA?
 - What aspects of the PSIA research process used had capacity-building value? How can the research process be strengthened to build capacity?
 - What complementary activities (e.g. training, briefings, etc.) could be undertaken to enhance understanding among policy makers of PSIA findings?
 - Where should the capacity to conduct PSIA studies be located (e.g. within government, NGOs, academia) to maximise policy impact?
14. If you are familiar with PSIA methodology, how, in your view it could be strengthened to enhance impact?
15. What do you see as potential future steps to be undertaken in terms of PSIA-related activity in Armenia?
16. Does your agency plan to do any PSIA related work in Armenia?

ANNEX 5: ROUNDTABLE REPORT

As part of the post PSIA Pilot assessment exercise a roundtable of policymakers was planned. Based on the team discussions, it was concluded that the best option was to convene the PRSP Working Group since it: (a) includes key policymakers involved in the PRSP process; (b) involves representatives of a number of NGOs; and (c) provides a direct link for PSIA-related discussions to PRSP (see below for the PRSP WG members list).

The PRSP Working Group was convened on 12 February 2003. Among the three issues on the agenda, the key one was related to the Post-PSIA assessment. After a brief introduction of the purpose of the assignment by Tigran Khachatryan (Chairman of the WG), a brief summary of the Pilot PSIA results by Armenak Darbinyan, and introduction to the discussion by David Nyheim, the WG members were asked to answer the following questions:

PSIAs- does Armenia need them? All the participants were unanimous that yes, indeed Armenia needs PSIA studies. Perhaps they were needed even earlier, before or parallel to PRSP drafting, but now also they are very important, since in a number of areas major reform programs are in progress and there will be PRSP updates in coming years.

What needs to be done to build the sustainable capacity for future evidence based policy making? The participants stressed the need to train specialists in the PSIA methodology. This could include training of designated specialists from the relevant Ministries, and/or institutionalization of PSIA at an NGO/research institute, or perhaps creating a network of those. But whatever the option, a link should be made with the UN supported M&E scheme for the PRSP implementation.

What needs to be done to ensure the effective implementation of a PSIA's recommendations? A few participants, and in particular Mrs. Hranush Kharatian expressed doubts that in Armenia among the ruling elite there was/is a political will to implement any recommendations that would result from a PSIA study (in reference to the study that was carried out with her participation before the Pilot PSIA called "Utility Pricing and the Poor", which was in essence a PSIA study itself). This view was confronted by a number of other participants. For instance, the Deputy Minister of Labor and Social Issues Mr. Ashot Yesayan questioned the merits for such scepticism, arguing that there have not been many studies so that one could speak about the political will or the lack of such in implementing the recommendations. Mr. Armenak Darbinyan in addition reminded that certain recommendations of the "Utility Pricing and the Poor" study were indeed implemented, e.g. with regards to heating strategies. Mr. Tigran Khachatryan put forward, albeit only as an idea for now, that perhaps a legislative initiative could be taken to require that any major legislative revision, in addition to the analysis of financial consequences (as is the case now) has also a PSIA type of analysis attached. He stressed however that this is just an idea for now, the feasibility of implementation of which needs to be assessed. One potential problem is that if implemented this will require the existence of skilled researchers at different Ministries, or may be an institution that would be specialized in carrying out PSIA type of analysis in cooperation and for them.

If there were to be future PSIA's in Armenia what areas should they cover? A few of the participants (and in particular Larisa Alaverdian) expressed a concern that focusing a PSIA study on a concrete area might not be the best idea, and even dangerous, since many of the policies are so much linked, that any such kind of isolated impact assessment risks losing the appreciation of the compounded impact. Deputy Minister of MTED mentioned two potential areas for future PSIA research: (1) the impact of upcoming anticipated higher rates of inflation due to increase in price level of some of the main commodities like bread and cereals and tariffs for utilities; and (2) assessing the impact of the subjecting agriculture to VAT taxation by 2009 as a result of Armenia joining WTO. Gohar Gyulumian from the WB mentioned two areas (1) the anticipated increase of the main (four) utility tariffs and (b) irrigation. Ashot Yeasayan from the Ministry of Labor and Social Issues spoke in favour of assessing the impact of the main social assistance program (Poverty Family Benefit Program). This latter idea, as well as "utilities" and "irrigation" subjects was supported by Tigran Khachatryan. Christopher Mallman, a GTZ advisor to PRSP process said that GTZ is ready to fund a PSIA study for one selected sector and suggested two topics for consideration: assessing the potential impact of (a) rehabilitating the rural economy; and (b) growth and monetary transfers from abroad. The latter suggestions did not find much support in the audience, with a few exceptions, with the main rationale that in essence they were not PSIA studies. As a conclusion it was decided that the members of the WG will in a two-week time write up their ideas as potential PSIA studies. It was however also noted that these priorities should be in line with the priorities identified by the PRSP.

Main messages from the PRSP Working Group to donor community. The main messages to the donor community were summarized as follows: Armenia ranks the importance of carrying out PSIA type

of studies as very high and needs the support of the donor community in building the sustainable capacity for carrying out PSIA studies; methodological training and execution of PSIA studies in the key selected areas.

Composition of the PRSP Working Group

- T. Khachatryan: Deputy Minister of Finance and Economy, Chairman of the WG
- A. Yesayan: Deputy Minister of Social Security, Deputy Chairman of the WG
- A. Topuzian, Deputy Minister of Education and Science
- T. Hakopian, Deputy Minister of Health
- A. Abovyan, Deputy Minister of Justice
- A. Gevorgian and G. Vardanian, Deputy Ministers of Trade and Economic Development
- H. Petrossian, Board member of National Statistics Service
- A. Darbinyan, Director of the Economic Research Institute of the Ministry of Finance and Economy
- S. Hairapetian and G. Gyulumian, WB office in Armenia
- A. Mirzhakhanian, UNDP
- L. Alaverdian, Fund Against Violation of Law NGO
- L. Harutyunian “Armenian Democratic Forum” NGO
- V. Soghomonian, Chairman of the National Association of Farmers
- S. Khalatian, Adviser to the Union of Manufacturers and Businessmen of Armenia

ANNEX 6: OVERVIEW OF PILOT RECOMMENDATIONS VERSUS POLICY UP-TAKE

PSIA PILOT RECOMMENDATIONS	POLICY UP-TAKE OF RECOMMENDATIONS
Municipal Water	
Proceed with the mass installation of individual meters but on a more generous instalment basis of payments spread over several years. First of all this will mitigate the burden on the poor. It will also have a positive psychological significance since: (a) It will signal the good-will by the GoA; and (b) it will eliminate the negative consequences of sharing the costs in multi-story buildings among those who will not have meters. Meters for the extremely poor (at least for those included in PFBP) should be installed free of charge.	<i>Current policy is that the government installs meters for those in the Family Benefit System free of charge and for those in the list of vulnerable of the Ministry for Social Protection it provides a mechanism for gradual repayment of the cost of the meters. This scheme was stipulated by a Law (09/12/2002) on privileges granted for water services payments.</i>
A well designed public awareness campaign is needed: (a) to underline the importance of the reforms, which are crucial for the continued functioning of the system; (b) to promote the idea of fairness and transparency, that should accompany the reform; and (c) the explain the concept and progress of the latter.	No up-take
Assistance to poor households is needed (at least to those included in PFBP) with (a) forgiveness of accumulated arrears; and (b) a specifically designed program of extra targeted support. Additionally it is recommended that consideration be given to a block tariff, or a lifeline tariff, since this would allow the poor to pay below the cost, while the rich or those consuming more water will still have incentives to save water. It would also reduce the shock to the poor by not excluding those who just fall outside the eligibility criteria. The extended timescale proposed for the introduction of new tariffs does mean that there is time to overcome the administrative difficulties of this more complex payment regime.	<i>The government has not yet outlined the nature of social protection mechanisms that will be put in place to mitigate the negative impacts on vulnerable groups once tariffs for potable and irrigation water are increased. As such, the PSIA recommendations on tariffs and social protection mechanisms are still relevant.</i>
It is clear that the condominium mechanism in water delivery is going to be a major challenge. The GoA has prepared a major program for their strengthening, which may succeed. However given the rather negative experience with the condominiums so far, other alternative options, at least for water delivery should be investigated. This includes the model in Armavir ("Nor Akung").	<i>Evidence suggests that the approach is problematic and the government is now looking into alternatives, such as instituting the notion of "professional managers".</i>
Future research: <ul style="list-style-type: none"> Regular monitoring and evaluation of household water consumption behaviour and preferences, and careful analysis to design an optimal water tariff. A proposed next step in future research is to combine the stated preference data on water consumption with revealed preference data from metering studies to validate the demand model and initiate design of an optimal water tariff. Utility prices can not be increased in isolation from housing and maintenance fees. Social assessment of the population's ability and willingness to pay may be necessary In this regard there is also a need of an integrated PSIA study for housing services, including water fees. Specific surveys that could reveal the most appropriate mechanisms of social assistance would also be useful. 	No up-take
Irrigation	
Provide community level assistance aimed at developing infrastructure and development of non-farm sector in the more vulnerable rural areas.	<i>"If tariffs are set according to zones, there will be a need for alleviating its potential social impact in certain regions: thus government may channel budget savings accumulated on suspension of subsidies to those regions (this may be done under the financial adjustment policies or other methods, with the final choice to be further investigated)" (Paragraph 385, p. 136: PRSP, 2003)</i>
Assist the poorest rural households directly at least on a pilot basis. A pilot experimental programme of irrigation vouchers to assist extremely poor and vulnerable rural	No up-take

households, which engage in agricultural production for their own use only is warranted. The modalities of such a scheme still needs to be developed, but possibly the payments could be channelled through WUGs.	
Foster the development of co-operative mechanisms in agriculture and WUGs. Strengthening of WUGs is crucial for the success of irrigation sector reforms and the development of agriculture: about 25% of the WUGs established after 1996 are already working quite well while others are failing badly.	<i>No up-take</i>
Implement pilot projects in 2-3 key specific water resources management areas with serious problems (i.e., water scarcity, drainage, water pollution) to develop local programs for addressing problems arising from the increased irrigation tariffs.	<i>No up-take</i>
<p>Future research:</p> <ul style="list-style-type: none"> • Research could encompass also more detailed modeling of the economics of different types of farms and their differential susceptibility to shocks such as higher water tariffs. It would be expected to provide recommendations on: (a) the ways of mitigating the negative poverty and social impacts of the proposed reform package; (b) refining the reform program <i>per se</i> so as to mitigate the most severe negative poverty and social impacts; (c) propose complementary measures to achieve the above. • To determine the efficiency of the proposed social assistance to poor and vulnerable households, a sampling experiment is needed based on a targeted survey that takes into consideration the regional and other differential features of Armenia's rural households. 	<i>No up-take</i>

TEAM BIOGRAPHIES



Armenak Darbinyan (darmenak@netsys.am) is the Director of Economic Research Institute since 2000. He is also a part-time consultant for DFID on governance issues. A Doctor of Economics, he is the author of two books and more than thirty articles. Following his graduation from Yerevan State Institute of National Economy in 1980, he worked in the Institute of Economy/Academy of Sciences of Armenia as an economist (1980-1991). Subsequently, he moved to the Ministry of Foreign Economic Relations as a head of department and then became first deputy Minister (1991-1992), deputy Minister of Economy (1992-1997). Armenak has also worked as a UNDP consultant, lead scientific researcher of ERI, and visiting professor of Academy of Public Administration (1998-2000).



Tigran Kostanyan (t_kostanyan@yahoo.com) has been the Leading Specialist of the Macroeconomic Policy Department in the Ministry of Finance and Economy since 2000. He holds a Ph.D. in Economics (Yerevan State Institute of National Economy in 2000) and is the author of six articles. He was engaged in the PRSP elaboration process as Member of the Social Monitoring and Analysis Central Unit - jointly established by the Government of Armenia and UNDP. Tigran is also a member of "Economic Research and Development Center" that deals with poverty-reduction issues.



David Nyheim (david@kardosnyheim.com) has been a Partner in Kardos and Nyheim Consulting since 2003 and consults primarily on conflict issues. He previously served for six years as the Director of the Forum on Early Warning and Early Response. He has also held a number of policy and research positions in the European Commission, University of Louvain, and University of London. David is trained in political science (McGill), medical sciences (Louvain), and public health (London). He has authored over 20 articles on a variety of issues.

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